The background of the cover features several technical line drawings of doll patterns, including a head, torso, and limbs. These patterns are interconnected by a network of red lines that converge at a central point, creating a star-like or web-like structure. The numbers 1 through 9 are placed at various points along these red lines and the pattern outlines. The title text is overlaid in a large, blue, sans-serif font.

Pattern Making For Dolls

Sue Darby

**Illustrated
Sue Darby**

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Pattern Making for Dolls

By Sue Darby
Illustrated By Sue Darby

Sue's Tiny Costumes
©2002-2005

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<http://www.suestinycostumes.com>
sue@suestinycostumes.com

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Introduction

This is to introduce my latest creation of "Pattern Making for Dolls". This was originally a tutorial I created for my mother entitled "Measuring a Lady Doll 101". I have since written the "Crash Course for Pattern Drafting for a Child Doll" as a full tutorial for a doll making list and "Pattern Drafting for Miniature Dolls" which is the full fleshed out version of the "Crash Course".

This has been in production for a while as I was writing it back in 2000 and 2001 while working on "Pattern Drafting for Miniatures" but as there are many differences between sewing in miniature and sewing for a larger doll I had to stop and choose one to finish putting the other on hold until a future time. Finally that future time has arrived!

Please enjoy Pattern Making For Dolls.

Sue Darby
Author & Owner
Sue's Tiny Costumes

Section I Basic Drafts

Introduction to Section I

Supplies

Specification Sheets

Doll Chart- test

Measurements Chart

Explanation of Measurements

Bodice Drafts-Lady

Bodice Drafts- Children, Men & Baby

Skirt Drafts

Sleeve Drafts

Pants Drafts

Torso Drafts

Truing

Test Fit

Permanent Blocks

Introduction to Section I

In this section you will learn to draft a basic block. If you find a term you do not know there is a glossary in the back. Please read all the instructions all the way through before trying anything.

Test your patterns several times before creating a permanent block. You will also want to draft a first set of all the patterns and then create the torso for the skirt and pants, test those and use them for finished blocks instead of your original drafts as using the torso drafts you can always trace what you need of a pattern and also have fewer pieces to loose.

Once you have a good fit your basic blocks then your stylizations in section II will be much easier to do and will fit with little or no alteration.

All the blocks have no seam allowances. There is ease but the lack of seam allowance makes stylizations easier to do. You add the seam allowance to your finished stylized patterns not your blocks.

Most dolls are evenly made and thus you only draft $\frac{1}{2}$ of a side i.e. Half of the front bodice and then cut the front on the fold or add a placket

Mark alterations in different color pencils so you can track changes and know which line is for the final block.

Most measurements are taken on the half or in the case of an arc the quarter. The exception is circumference measurements which are around the whole body. It is advisable that you mark somehow where your measurements are taken from this can be done with ribbon tied around the bust, waist and hips or with scotch tape which can later be peeled off and does not leave anything behind. Deciding how you are doing the basic markings for the doll will make a big difference in how accurate your measurements are.

This book is written in standard but you can easily convert to metrics if you are more comfortable with metrics just by using metrics to do the measuring work. For standard you will want a ruler marked at least to 1/16ths and a gridded ruler like for quilting will be especially helpful.

Supplies

1/8 or 1/4" Ribbon -used to mark where the bust waist and hips land so that measurements are accurate. To help measure hard to get into places on small dolls. You can lay the ribbon on the doll and then use a pen dot to mark the desired amount and then measure the end to the dot.

Bodkin- used to aid in turning small spaces (see supply sources)

Chalk or Colored Pencils- used to mark on your fabric for various reasons

Corrugated Cardboard- for the pin n pivot method of stylizing

Embroidery Floss- used to create the loops for your bead 'buttons'

Eraser- pink pearl or kneaded gum

French Curve, tape dispenser, or sets of "doll size" French curves

Glue stick

Light Table or A Box with a Light Inside and Clear Glass or Plastic Over the Top or A Child's Light Table - used for tracing patterns easier

Magnifying glass

Manila Envelopes, Thin Cardboard, Card Stock Or Junk Mail Post Cards Or Thin Cardboard Boxes- for creating permanent blocks

Measuring Tape - a normal sized human one works well

Muslin- relatively inexpensive way to do test fits and be able to sew the pieces together along with marking on the pieces any changes

Paper- light weight for first drafts of the pattern

Paper Towel- inexpensive way to test patterns

Pencil- mechanical pencil or a no. 2 normal pencil with a sharp point

Pins- general purpose or silk pins depending on your doll size and fabric type

Push Pins- for the Pin N' Pivot method of stylizing

Ruler - an accurate one marked in 1/16ths and also centimeters

Scissors - fine tip sewing scissors some for paper and another pair for fabric

Scotch Tape- taping parts of a pattern in place while adjusting or stylizing

Seed Beads- glass beads smallest you can find with holes

Silk pins- for working with fine fabrics

Small Rotary Cutter With A Sharp Blade- to ease cutting out pieces from fabric optional

Small Rotary Mat- must be used if you use a rotary cutter optional

Tweezers- to aid in getting into small spots

Ultra-Fine Point Sharpie

Wire Cutters- for trimming wire

Xacto Knife- to aid cutting out permanent blocks

Specification Sheets

Why are they useful? Specification sheets are very useful to keep track of design details. This is including but not limited to what doll, fabrics, item numbers for those of us in a business or that have a huge doll collection. Most important cost of a project not to mention a copy of the actual design, front and back view with notes and swatches. You can also list where you bought a fabric or what else it might have been used for. Care instructions and anything else you think might be important for future reference.

A specification sheet would be kept with the measuring chart for the doll that the design goes with. If it goes with multiple dolls then the measurement chart for each doll and a copy of the specification sheet should be with each. Later you can also add copies of the patterns in Ziplock bags or file folders and any construction information you need too. It is best to have some form of file folder system for this information if you think you may have a large collection of doll patterns as they are very easily lost!

Permission given by author to photocopy this page.

Specification sheet			
Doll: _____	Size of Doll: _____		
Name of garment _____	Style: _____	Number _____	
Season _____	Designer _____		
Yard goods:			
Face fabric: _____	Cost: _____	Sketch & Swatches	
Width: _____	Length: _____		
Color: _____	Weight: _____		
Interfacing: _____	Cost: _____		
Width: _____	Length: _____		
Color: _____	Weight: _____		
Lining fabric: _____	Cost: _____		
Width: _____	Length: _____		
Color: _____	Weight: _____		
Trims: _____	Cost: _____		
Width: _____	Length: _____		
Color: _____	Weight: _____		
Total \$ _____	Cost: _____		
Notions:			
Fasteners _____			
Thread: _____	Spools _____		
Total \$ _____			
GRAND TOTAL PER UNIT: _____			

Doll Chart

This chart is for all the places in the instructions that say 'see doll chart'. It is divided so that you can find the right measurement for your size doll that you may currently be working with and use the correct numbers for the step you are on. The chart is for just the drafts of the basic blocks - bodice, sleeve, skirt, and pants for the lady, child, baby and man sections in Section I. Table of Contents Explanations

Pattern Piece	Doll Size		Measurement	Amount
Bodice	11-16"		Ease	1/4"
	17-20"			1/4"
	21-30"			1/4"
	11-16"		Dart Intake	1/8"
	17-20"			1/8"
	21-30"			1/8"
Lady Only	11-16"		Mid-Armhole Mark	1/16"
	17-20"			1/16"
	21-30"			1/16"
	11-16"		Minimum for 90°	1/4"
	17-20"			1/4"
	21-30"			1/4"
	11-16"		Side Seam Allowance	1/8"
	17-20"			1/8"
	21-30"			1/8"
	11-16"		Sleeve Cap Top	1/8"
	17-20"			1/8"
	21-30"			1/8"
Sleeve	11-16"		Sleeve Cap Bottom	1/8"
Not Baby Or Child	17-20"			1/8"
	21-30"			1/8"
	11-16"		Skirt Ease	1/8"
	17-20"			1/8"
	21-30"			1/8"
Skirt	11-16"		Skirt Dart Intake	1/8"
Lady & Child Only	17-20"			1/8"
	21-30"			1/8"
	11-16"		Pant Ease	1/8"
	17-20"			1/8"
	21-30"			1/8"
Pants	11-16"		Pant Dart Intake	1/8"
	17-20"			1/8"
	21-30"			1/8"
	11-16"		Crotch Bisect	1/8"
	17-20"			1/8"
	21-30"			1/8"

Measurement Chart

This is a master list of all the measurements needed for all dolls. Copy the entire list and fill in the ones you need for whatever doll you are going to be currently using. Following will be explanations of how to do these measurements for each type of doll. *Permission granted by author to copy this page.*

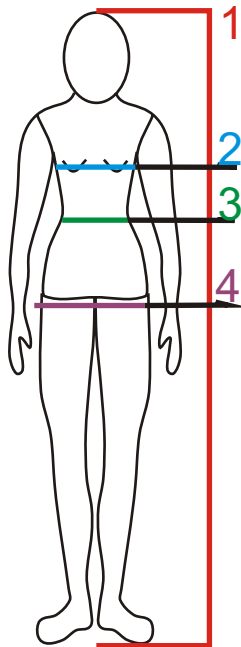
	Measurements		Notes
1	Full Height		
2	Bust/Chest		
3	Waist		
4	Hip /Hip W/Diaper		
5	Center Length Front		
	Back		
6	Full Length Front		
	Back		
7	Across Shoulders		
	Back		
8	Side Seam Length		
9	Shoulder Length		
10	Shoulder Slope		
	Back		
11	Bust Span (Ladies Only)		
12	Bust Depth (Lady Only)		
13	Side Seam To Floor		
14	Back Waist To Floor		
15	Crotch Depth		
	Back		
16	Hip Depth		
	Back		
17	Side Hip Depth		
18	Finger Span		
19	Wrist		
20	Around Foot		
21	Upper Arm		
22	Sleeve Length		
23	Armhole Depth		
24	Waist To Knee		
	Ankle		
	Floor		
	Short Train (Lady Only)		
	Long Train (Lady Only)		
25	Inseam		
26	Outseam		
	Arm Type		
	Leg Type		
	Body Type		
	Finger Type		
	Dart Placement		
	Waist Arc		
	Hip Arc		
	Bust/Chest Arc		
	Doll Type/Scale		

Explanation Of Measurements & Diagrams Shown on a Lady

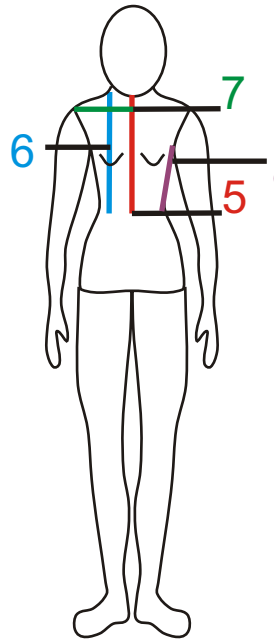
The measurements are shown on a lady, but are in the same places for a child, baby or man.

Take ribbon and pass it around your doll's waist, bust or chest, neck and hips. Fasten ends together. Choose to use either the top or the bottom of each piece of ribbon as a guide for starting or stopping a measurement. You may also want to mark in pencil or pen the center front and back for reference on the ribbon too.

This section of the book deals specifically with measuring different types of dolls and all of the explanations are included in one place.

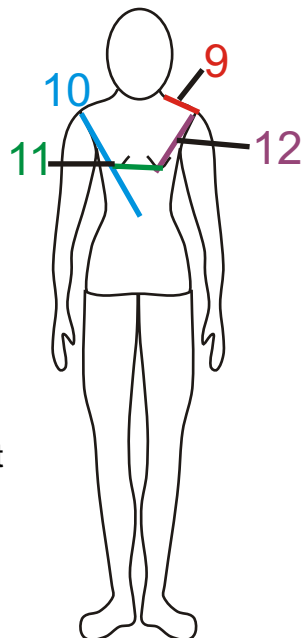


- 1) Full Height Head to toe height with or without wig.
- 2) Bust /Chest Around the fullest part of the chest.
- 3) Waist Around waist.
- 4) Hip Measure widest area parallel with the floor.

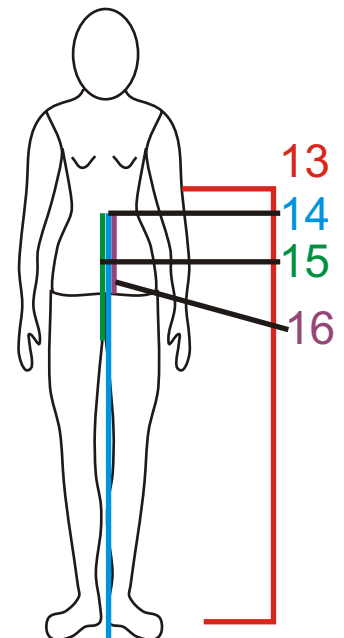


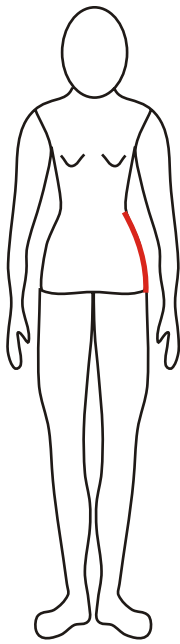
- 5) Center Front /Back Length Center front neck to waist. Nape of the back neck to waist.
- 6) Full Length Waist to shoulder at neck over bust (determines shoulder seam) waist to neck over shoulder blade.
- 7) Across Shoulder From shoulder tip to shoulder tip on front and across the back at the fullest point. ONLY RECORD 1/2 of measurement
- 8) Side Seam Length Bottom of armhole (about chest high) to the waist.

- 9) Shoulder Length Shoulder tip to neck.
- 10) Shoulder Slope Center of waist to shoulder tip over bust diagonally same on back. Should be almost as long as full length
- 11) Bust Span- measured from apex to apex on front
- 12) Bust Depth From shoulder tip to bust point (apex)

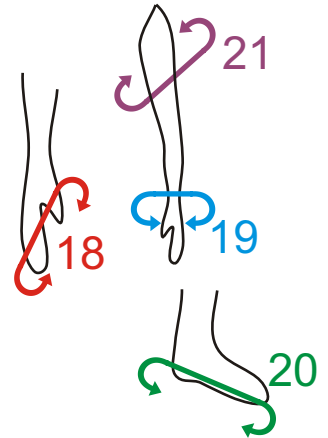


- 13) Side Seam To Floor Side at waist to floor.
- 14) Back Waist To Floor Center back to floor.
- 15) Crotch Depth - Depth from waist to crotch level if doll does not have an official crotch approximate the right area for it.
- 16) Hip Depth Center front to hip line.

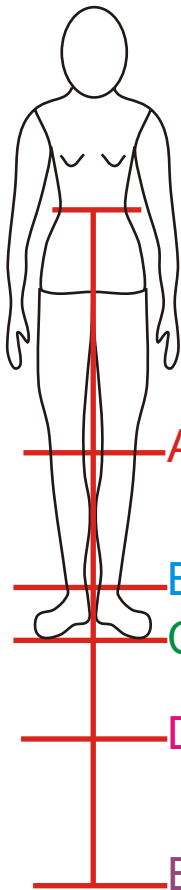
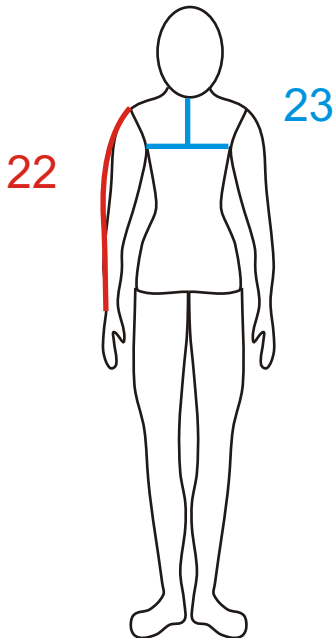




- 17) Side Hip Depth Side waist to the hip on the side of the doll (over the curve of the hip).
 18) Finger Span Around the fingers of both hands to determine which is bigger Finger Span or Wrist.
 19) Wrist Around the wrist.
 20) Around Foot Around the circumference of the foot at sole level.
 21) Upper Arm Around the point where your doll's porcelain or vinyl meets the cloth of the rest of the body.

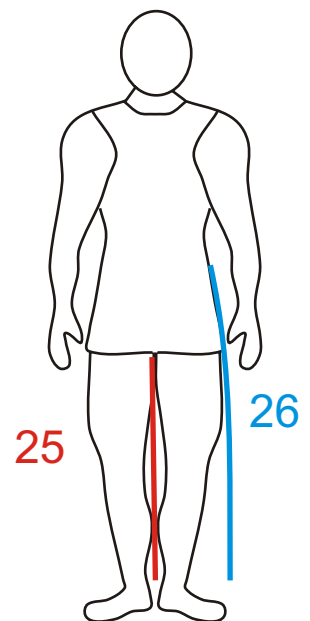


- 22) Sleeve Length From Shoulder tip to wrist measuring the inside of the arm is not necessary
 23) Armhole Depth-measured on the back from neck along spine to bust ribbon or bust level



- 24) Waist to ankle, Floor, Knee, Short train, Long train
 A Center front Waist to knee
 B Center front waist to ankle
 C Center front waist to floor
 24D Back waist to beyond floor for only an extra inch or so
 E Back waist to a larger distance beyond floor for longer train 4-5"

- 25) Inseam From crotch to ankle for pants
 26) Outseam from waist over hip to ankle for pants



🗑️ Waist arc

Divide total waist circumference measurement by 4 and then add ease from section chart (waist is 4" divide by 4 equals 1" ease for doll is 1/4" total waist arc is 1 1/4")

🗑️ Hip arc

Divide hip circumference measurement by 4 and add ease using section chart

🗑️ Arm type

Where the porcelain or vinyl meets the rest of the body determines minimum sleeve length

🗑️ Leg type

Where the porcelain or vinyl meets the rest of the body determines minimum skirt or pants length

🗑️ Body type

Cloth porcelain vinyl etc determines if you need extra ease

🗑️ Finger type

What type of fingers your doll has- a mitt, some fingers spread or individual fingers. Especially important for sleeve openings if the fingers are spread out then you have to adjust and use the finger spread measurement and not the wrist measurement if you have a porcelain or other fragile type doll and a straight sleeve without elastic or other style of opening at the hem.

🗑️ Guidelines are simply lines of undetermined length to provide a place to measure or draw a line to. They are not precise and do not have set lengths, most however, do need to be a squared (90° angle) angle from another line.

Lady Bodice

Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you will be working with. The ones in italics can be found on the *Doll Chart*.

6) Full Length (Front & Back)

7) Across Shoulder

5) Center Length (Front & Back)

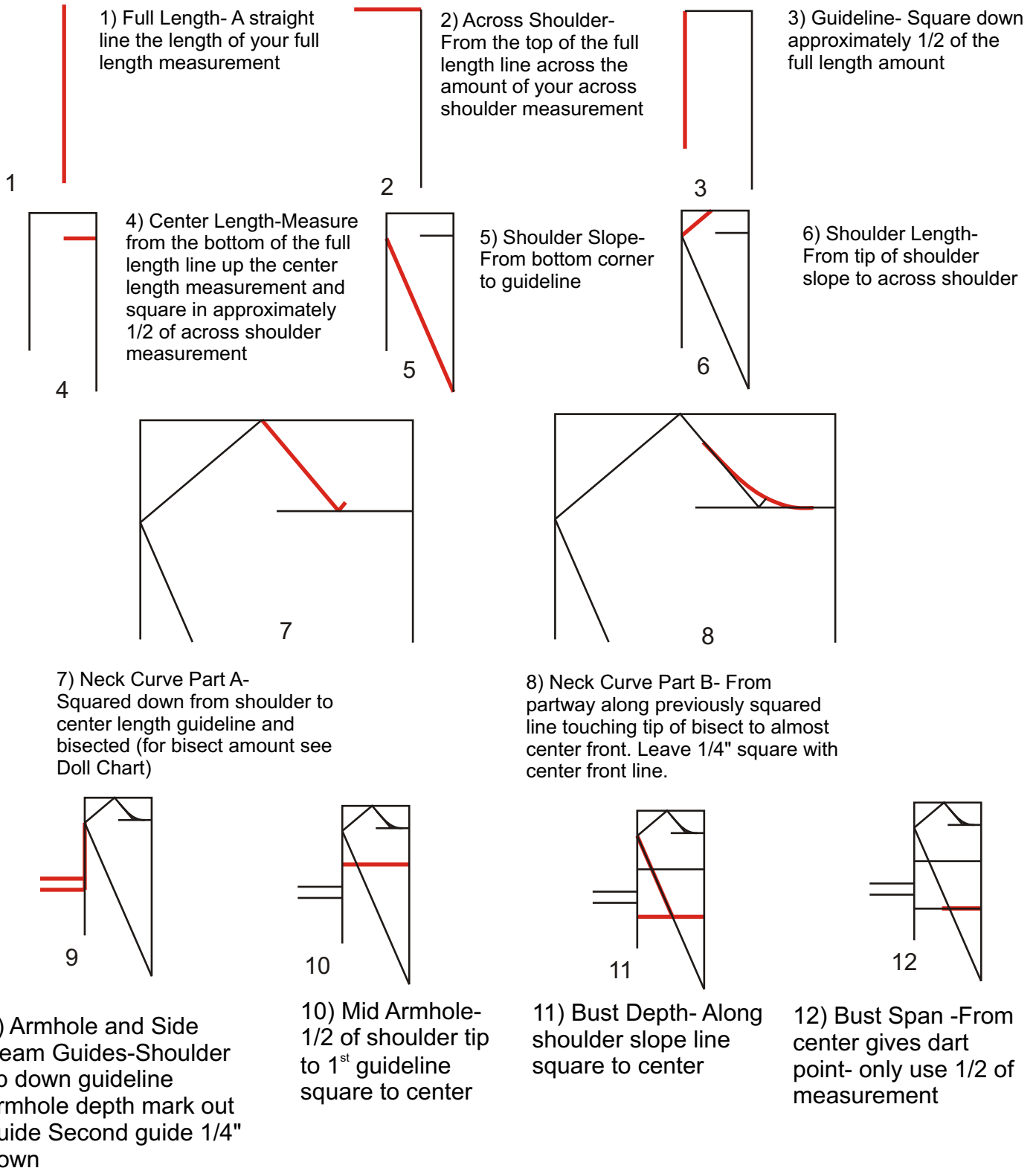
9) Shoulder Length

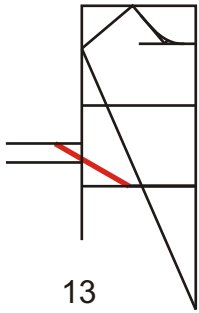
10) Shoulder Slope

Waist Arc

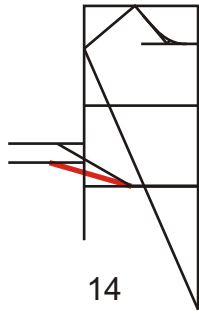
12) Bust Depth

8) Side Seam Length



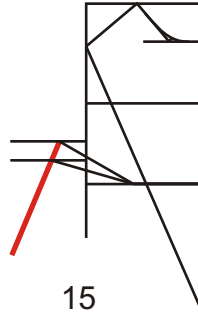


13



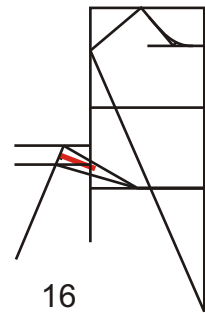
14

13 & 14) Take the bust arc and subtract the bust span number; take your answer and measure from the end of the bust span line, angling it towards the top guide. Use the same number and angle it towards the bottom guide.



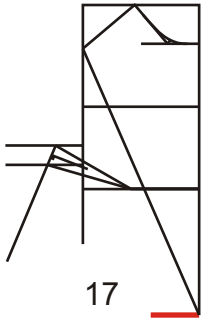
15

15) Side Seam-From where line crosses upper guide through where bottom angle crosses lower guide side seam length



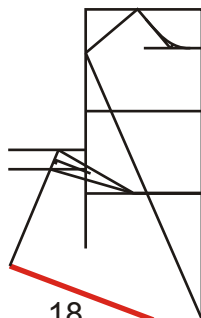
16

16) Armhole Drop-From top drop 1/8" this will be actual point for armhole curve to end square in 1/2"



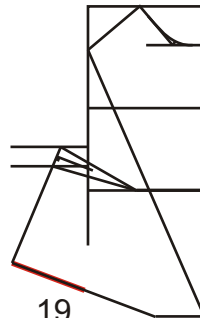
17

17) Dart Placement - Center front towards side seam squared & cross marked



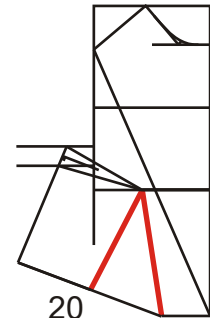
18

18) Waist Guide-From end to side seam in a dashed line



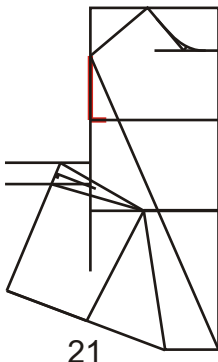
19

19) Waist = waist arc minus dart placement



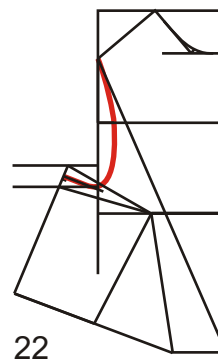
20

20) Connect the dart legs from the end of the dart placement line and from the end of the waist to the bust point



21

21) Measure down vertical guideline to mid armhole line mark in mid-armhole mark (see Doll Chart)



22

22) Armhole- Using your French curve from shoulder tip through mark at center (last step) to bottom of armhole at side seam be sure that you start out square at the shoulder tip for at least 1/4" and end with a squared corner at the side seam

Back



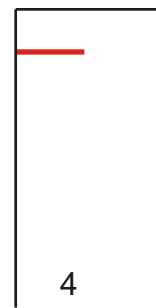
1) Full Length- A straight line the length of your full length measurement



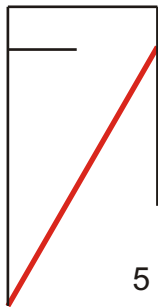
2) Across Shoulder-From the top of the full length line across the amount of your across shoulder measurement



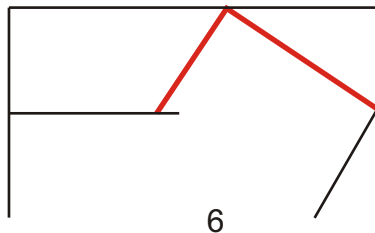
3) Guideline- Square down approximately 1/2 of the full length amount



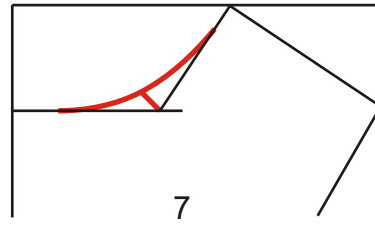
4) Center Length-Measure from the bottom of the full length line up the center length measurement and square in approximately 1/2 of across shoulder measurement



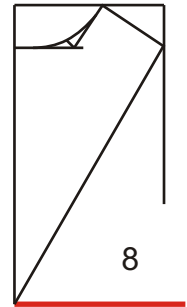
5) Shoulder Slope- From bottom corner to guideline



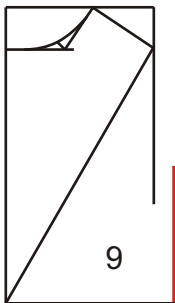
6) Shoulder Length- From tip of shoulder slope to across shoulder squared down from shoulder to center length guideline



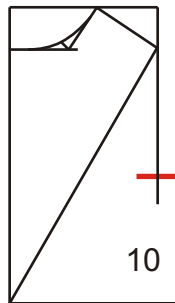
7) Neck Curve Part A- Bisect (for bisect amount see Doll Chart)
Neck Curve Part B- From partway along previously squared line touching tip of bisect to almost center back. Leave 1/4" square with center back line.



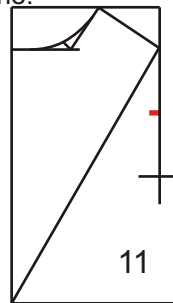
8) Bust Arc- Square out from front



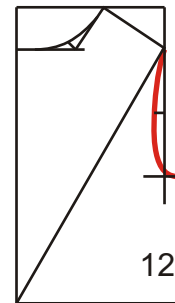
9) Side Seam Length- Square up



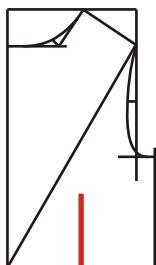
10) Armhole drop 1/2"- Drop down and square towards center



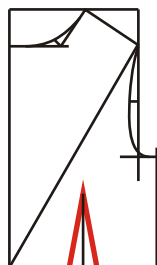
11) Mid Armhole- Find mid point of shoulder tip to armhole drop line and mark in Mid Armhole measurement (see Doll Chart)



12) Armhole Curve- From shoulder tip to mid armhole mark and down to bottom leaving about 1/4" perfectly square with side seam



13) Waist Center - Find center and square up 1"



14) Dart-Mark 1/2 difference of bust and waist arc to either side of line connect to tip to form dart

Child, Baby or Man Bodice

Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in *italics* can be found on the Doll Chart

6) Full Length (Front & Back)

10) Shoulder Slope

7) Across Shoulder

Waist Arc

5) Center Length (Front & Back)

8) Side Seam Length



1) Full Length- a straight line the length of your full length measurement



2) Across Shoulder- from the top of the full length line across the amount of your across shoulder measurement



3) Guideline- square down approximately 1/2 of the full length amount



4) Center Length- measure from the bottom of the full length line up and square in approximately 1/2 of across shoulder measurement



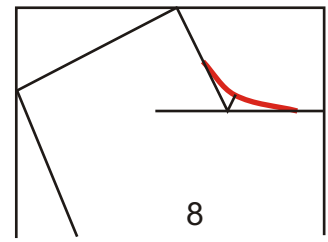
5) Shoulder Slope- from bottom corner to guideline



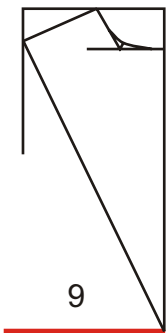
6) Shoulder- from tip of shoulder slope to across shoulder



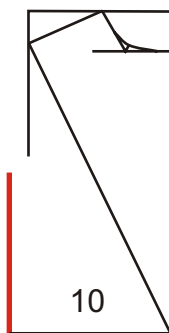
7) Neck Curve Part A- squared down from shoulder to center length guideline and bisected (for bisect amount see Doll Chart)



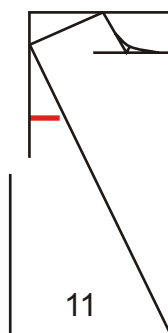
8) Neck Curve Part B- from partway along previously squared line touching tip of bisect to almost center front. Leave 1/4" square with center front line.



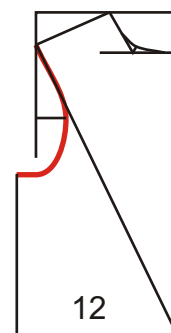
9) Waist- Formula: waist arc + ease (see Doll Chart)



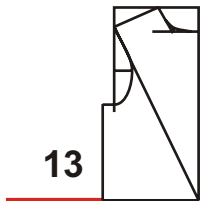
10) Side Seam -square up from waist side seam length



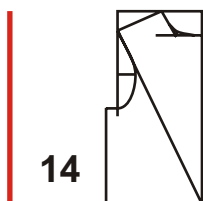
11) Mid-armhole Mark- measure from shoulder tip to top of side seam line and divide in 1/2. Mark out (see Doll Chart)



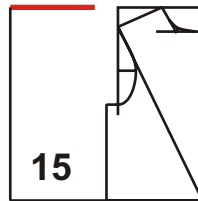
12) Armhole Curve-connect shoulder tip, end of mid-armhole mark and top of side seam in a curve, maneuvering your French curve until it fits.



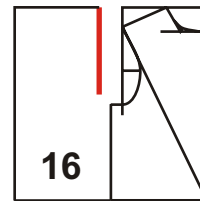
13) Waist- Formula: waist arc + ease (see Doll Chart)



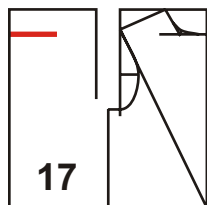
14) Center Back Full Length- a straight line the length of your full length measurement



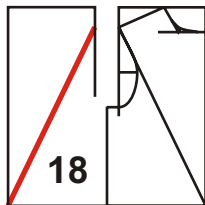
15) Across Back Shoulder- from the top of the full length line across the amount of your across shoulder measurement



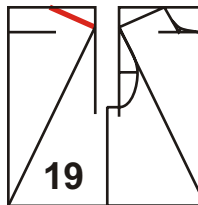
16) Guideline- square down approximately 1/2 of the full length amount



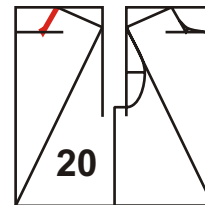
17) Center Back Length- Measure from the bottom of the full length line up and square in approximately 1/2 of across shoulder measurement



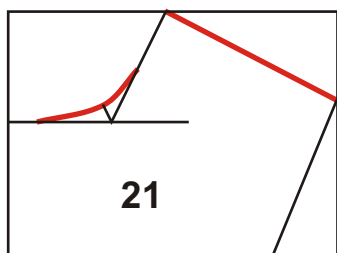
18) Shoulder Slope- from bottom corner to guideline



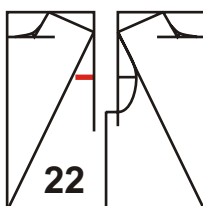
19) Shoulder- from tip of shoulder slope to across shoulder



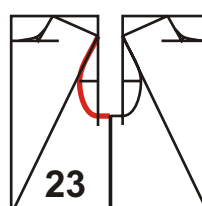
20) Neck Curve Part A- squared down from shoulder to center length guideline and bisected (see Doll Chart)



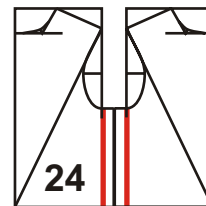
21) Neck Curve Part B- from partway along previously squared line touching tip of bisect to almost center front. Leave 1/4" square with center front line.



22) Mid-armhole Mark- measure from shoulder tip to top of side seam line and divide in 1/2. Mark out (see Doll Chart)



23) Armhole Curve- connect shoulder tip, end of mid-armhole mark and top of side seam in a curve, maneuvering your French curve until it fits.



24) Add 1/4" seam allowance to either side of the side seam

Sleeve

Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in *italics* can be found on the Doll Chart

22) Sleeve Length

18) Finger Span

21) Upper Arm

Sleeve Cap Bottom Marks

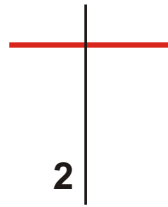
19) Wrist

Sleeve Cap Top Marks



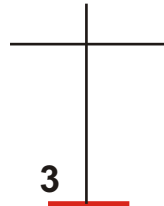
1

1) Sleeve length- Otherwise referred to as center



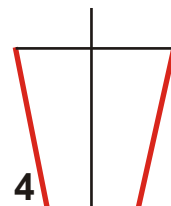
2

2) Cap height-1/3 of sleeve length marked and squared out from the top, 1/2 of the upper arm measurement to each side of the line



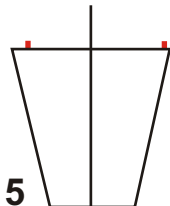
3

3) Wrist or finger span- Mark out 1/2 of the wrist or finger span (whichever is larger) to either side of center



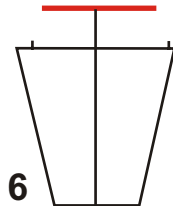
4

4) Sleeve sides-Connect cap height to wrist level, forming the sides of the sleeve.



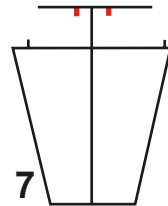
5

5) Sleeve cap bottom marks- 1/8 of upper arm measurement marked from the outside in and up according to Doll Chart for your size doll



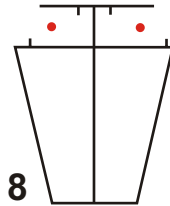
6

6) Sleeve cap top- Square out to either side



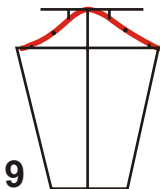
7

7) Sleeve cap top marks - Using the same 1/8 of upper arm from the bottom marks, mark from the center out and down according to the Doll Chart for your size doll.



8

8) Sleeve cap mid marks- Measure diagonally from the tips of the small marks and divide in half. Mark.



9

9) Sleeve cap curve- Form sleeve cap by using your French curve to connect the side to the bottom mark tip, then to the mid point, up to the top and down the other side.

Alternate Sleeve

Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in *italics* can be found on the Doll Chart

Sleeve length

Armhole circumference****

****Armhole circumference- measure your finished bodice pattern's armhole from shoulder tip to shoulder tip

Armhole Circumference X2 X length = light gathers

Armhole Circumference X3 X length = medium gathers

Armhole Circumference X4 X length = very gathered

Only does puff sleeves that are gathered at the top and then pulled in by way of elastic at the wrist

✍ Determine how full you want the sleeve (see chart)

✍ Measure from shoulder tip around elbow to wrist this will be your sleeve length

✍ Measure your armhole of your basic block

✍ Multiply the armhole circumference by desired fullness (see chart) draw first line as the sleeve length

✍ Label sleeve length

✍ Square out to one side only the distance of the armhole circumference from the top and the bottom

✍ Now draw the other sleeve length line

✍ Your result will be a rectangle that is your desired fullness wide by your dolls arm length long. From here you can add seam allowance to the top and bottom length and gather to fit.

This sleeve draft ONLY makes a puff long or short sleeve.

Ladies Skirt

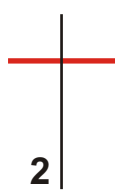
Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in italics can be found on the Doll Chart

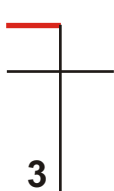
- Skirt Length
- Waist Arc
- 16) Hip Depth (Front & Back)
- Ease
- Hip Arc (Front & Back)
- 17) Side Hip Depth
- Dart Intake*



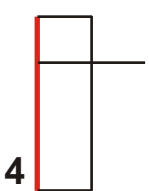
1) Skirt Length- This line will end up your side seam.



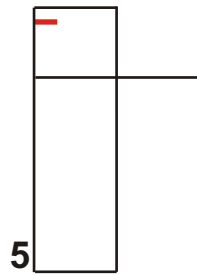
2) Side Hip Depth - Square out to either side.
To the left is the Back Hip Arc + 1/4" ease and to the right is the Front Hip Arc + 1/4" ease



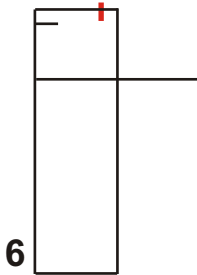
3) Back Hip Arc- At top square out
Formula: waist arc + dart intake (see Doll Chart) + ease (see Doll Chart)=back hip arc.



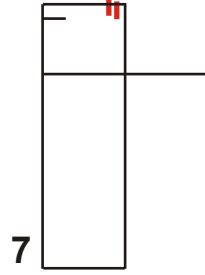
4) Center Back- Square out back hip arc at bottom and then connect from top to bottom to form center back.



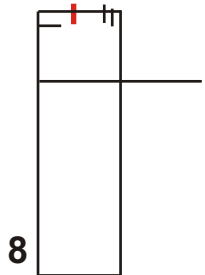
5) Back Hip Depth-Should be only slightly shorter than side hip depth mark in. If you used Back Hip Depth in step 2 use Hip Depth here.



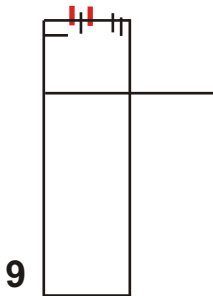
6) Back Waist Arc- From center back line towards side seam.



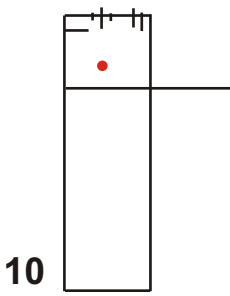
7) Dart Intake- Measure from back waist arc mark toward center back full dart intake amount.



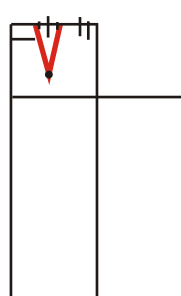
8) Center of Dart- Divide back waist arc in half and mark from center back.



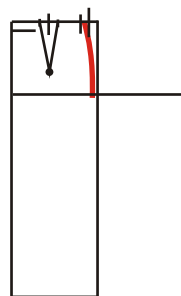
9) Dart Sides- Mark 1/2 of dart intake to either side of dart center.



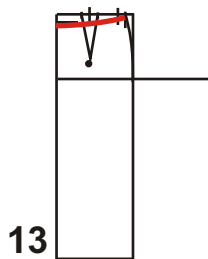
10) Hip Depth- Divide in half and mark squared down from center dart mark with dot.



11) Dart Legs- Connect sides to dot.

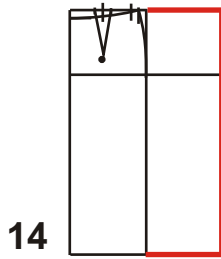


12) Hip Line- Curve from mark to hip level.



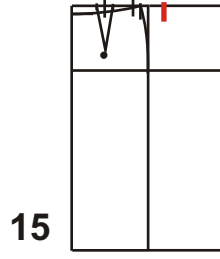
13

13) Waist Line- Curve from back hip mark to hip.



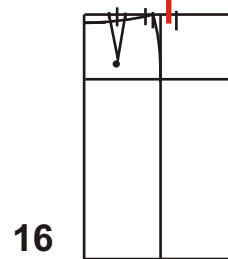
14

14) Front Hip Arc- Formula: Waist arc + dart intake (see Doll Chart) + ease (see Doll Chart) = front hip arc. At top square out. Then square out front hip arc at bottom and connect from top to bottom to form center front.



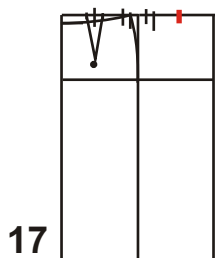
15

15) Front Waist Arc- From center front line towards side seam.



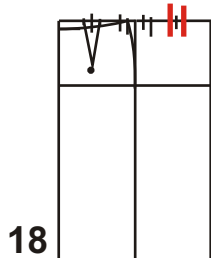
16

16) Dart Intake- Measure from front waist arc mark toward center front full dart intake amount.



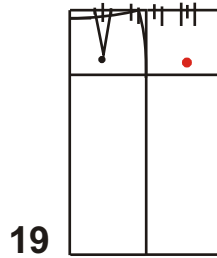
17

17) Center of Dart- Divide back waist arc in half and mark from center back.



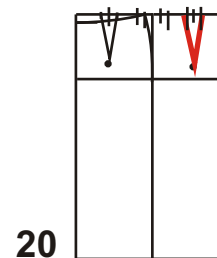
18

18) Dart Sides- Mark 1/2 of dart intake to either side of dart center.



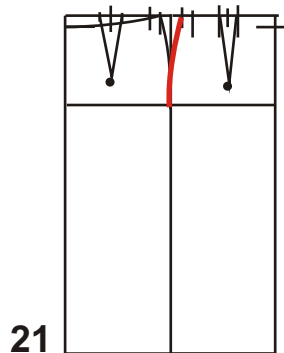
19

19) Hip Depth- Divide in half and mark squared down from center dart mark with dot.



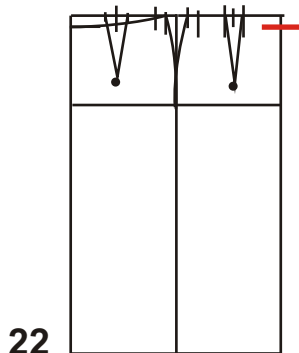
20

20) Dart Legs- Connect sides to dot.



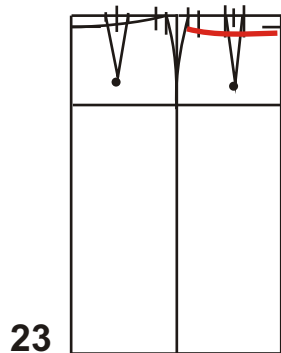
21

21) Hip Line- Curve from mark to hip level.



22

22) Front Hip Depth - Should be only slightly shorter than side hip depth mark in.



23

23) Waist Line- Curve from front hip mark to hip.

Skirt Children

Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in italics can be found on the Doll Chart

Skirt Length

Waist Arc

17) Side Hip Depth

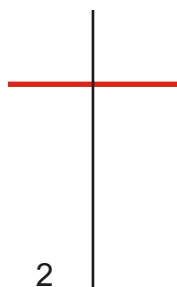
16) Hip Depth (Front & Back)

Hip Arc



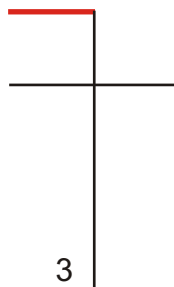
1

1) Skirt Length- Side seam.



2

2) Side or Back Hip Depth (whichever is deeper)- Square out to either side to the left back hip arc and to the right front hip arc.



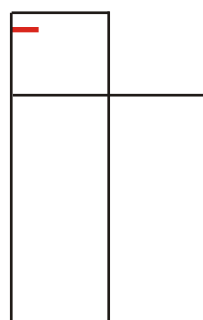
3

3) Back Hip Arc- At top square out back hip arc.



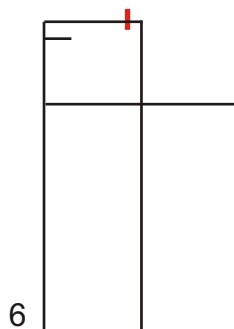
4

4) Center Back- Square out back hip arc at bottom and then connect from top to bottom to form center back.



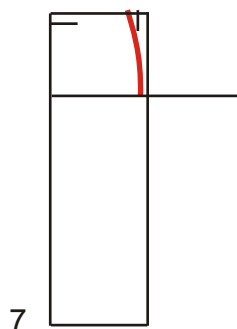
5

5) Back Hip Depth-Should be only slightly shorter than side hip depth, mark in. If you used Back Hip Depth in step 2 use Hip Depth here.



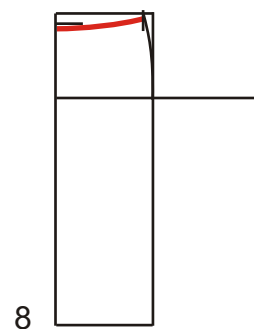
6

6) Back Waist Arc- From center back line towards side seam Formula: waist arc + ease. (see Doll Chart)



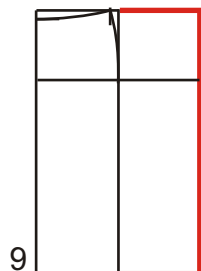
7

7) Hip Line- Curve from mark to hip level.



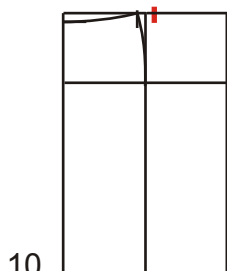
8

8) Waist Line- Curve from back hip mark to hip.



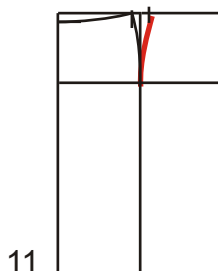
9

9) Front Hip Arc- Front hip arc. At top square out then square out front hip arc at bottom and connect from top to bottom to form center front.



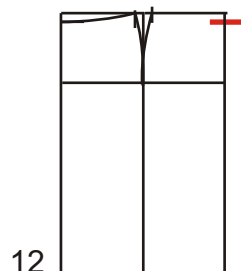
10

10) Front Waist Arc- From center front line towards side seam Formula: waist arc + ease. (see Doll Chart)



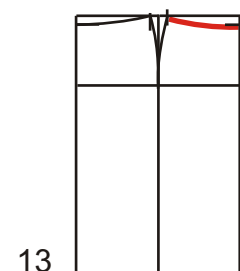
11

11) Hip Line- Curve from mark to hip level.



12

12) Front Hip Depth - Should be only slightly shorter than side hip depth, mark in.



13

13) Waist Line- Curve from front hip mark to hip

Alternate Skirt

2 X Waist	X Length	= Light Gathers
3 X Waist	X Length	= Normal Gathers
4 X Waist	X Length	= Full Gathers
5 X Waist	X Length	= Lots Of Gathers

Measurements Needed

Skirt Length
 Skirt Width****
 ****Skirt width- the amount of gathers you want. (see chart above)

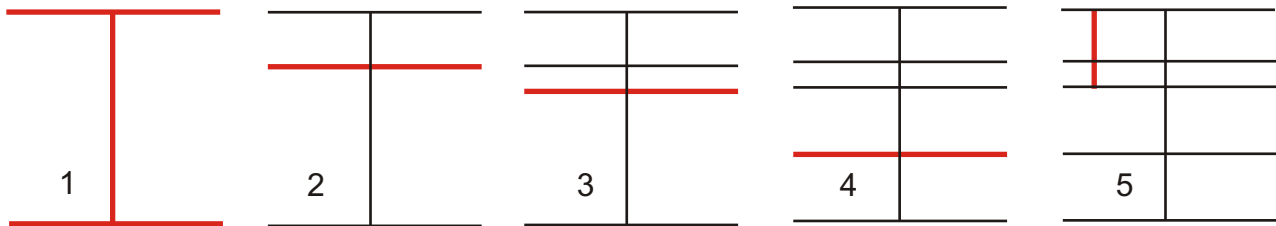
- 1) Determine skirt length.
- 2) Multiply waist measurement by how full you want the skirt to be. (see chart)
- 3) Draw 1 skirt length line.
- 4) Square out full skirt width from top and bottom.
 Draw opposite skirt length line.

Pants Ladies Only

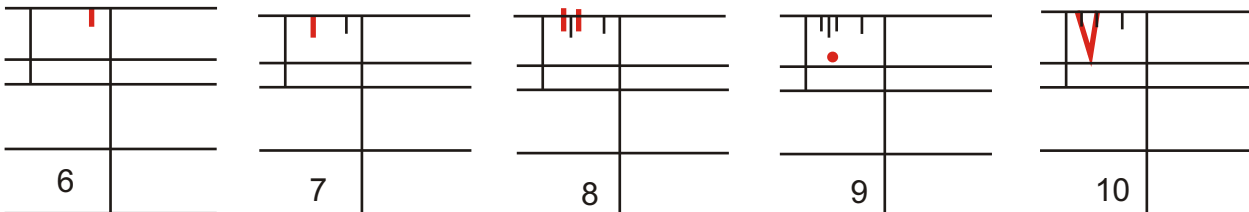
Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in *italics* can be found on the Doll Chart.

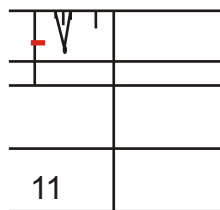
25) Waist To Ankle (Inseam)	Waist Arc
Hip Arc	17) Side hip depth
20) Around Foot	16) Hip Depth
15) Crotch Depth	4) Hip
24) Waist to knee	<i>Crotch bisect</i>
26) Outseam	<i>Dart intake</i>
<i>Ease</i>	



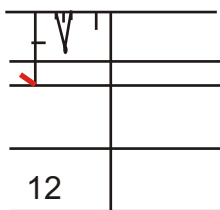
- 1) Side Seam- Pants length. Square out at top & bottom to both sides.
- 2) Side Hip Depth- Measure down and square out to both sides.
- 3) Crotch Depth- Measure down from top crotch depth and square out to both sides.
- 4) Waist to Knee- Square out to both sides.
- 5) Center Back- Formula: waist arc + dart intake (see Doll Chart) + ease. (see Doll Chart)



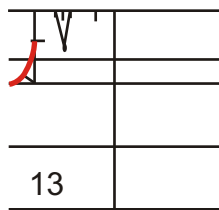
- 6) Back Hip Arc- From center back towards side seam.
- 7) Dart Center- Find center of back hip arc & mark.
- 8) Dart Sides- Mark 1/2 of dart intake to either side of dart center.
- 9) Dart Tip- Square down from dart center mark 1/2 of hip depth. Mark with a dot.
- 10) Dart Legs- Connect side dart marks with dot to form dart legs.



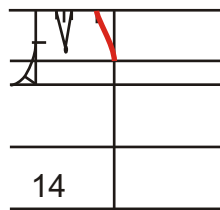
11) Mid Point- On center back line, find midpoint and mark.



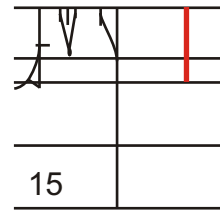
12) Crotch Bisect- At crotch level bisect (45° angle) and mark out according to Doll Chart.



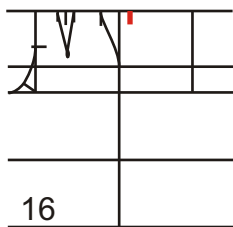
13) Crotch Curve- Using your French curve draw a curve from the mid-point to the crotch line touching the tip of the bisect.



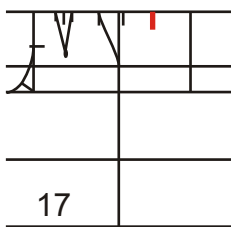
14) Hip- Draw in hip line with French curve.



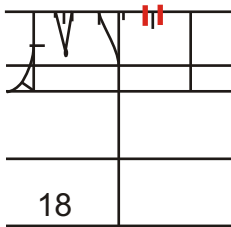
15) Center Front- Formula: waist arc + dart intake (see Doll Chart) + ease. (see Doll Chart)



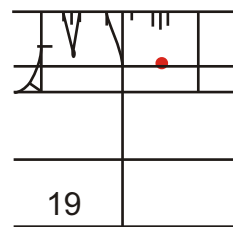
16) Front Hip Arc- From center back towards side seam.



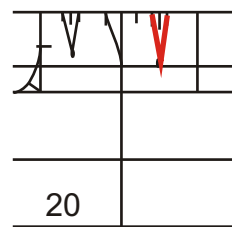
17) Dart Center- Find center of back hip arc & mark.



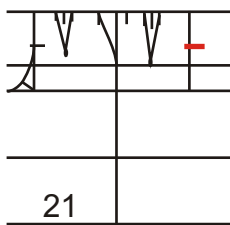
18) Dart Sides- Mark 1/2 of dart intake to either side of dart center.



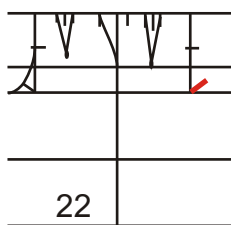
19) Dart Tip- Square down from dart center mark 1/2 of hip depth. Mark with a dot.



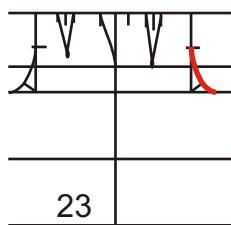
20) Dart Legs- Connect side dart marks with dot to form dart legs.



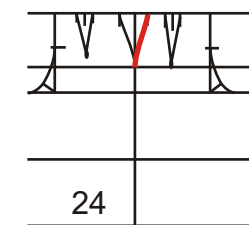
21) Mid Point- On center back line, find midpoint and mark.



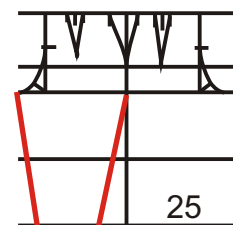
22) Crotch Bisect- At crotch level bisect (45° angle) and mark out according to Doll Chart



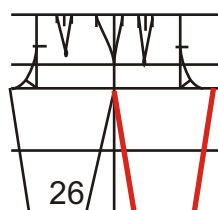
23) Crotch Curve- Using your French curve draw a curve from the mid-point to the crotch line touching the tip of the bisect



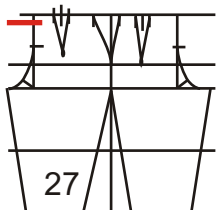
24) Hip- Draw in hip line with French curve



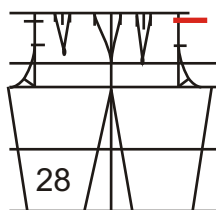
25) Inseam (crotch side)- Square down to bottom Outseam (side seam) - measure over 1/2 of around foot measurement and mark connect mark to crotch level line



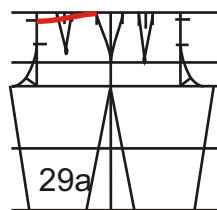
26) Inseam (crotch side)- Square down to bottom Outseam (side seam) - measure over 1/2 of around foot measurement and mark connect mark to crotch level line



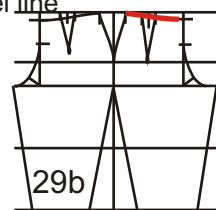
27) Back Hip Depth- From hip line measure up and mark



28) Front Hip Depth- From hip line measure up and mark



29a) Waist- Curve from hip depth mark to hip line



29b) Waist- Curve from hip depth mark to hip line

Pants Child, Baby & Man

Measurements Needed

Copy the following to your paper before you start and fill in with the correct measurements for the doll you are working with. The ones in *italics* can be found on the Doll Chart

25) Waist To Ankle (Inseam)

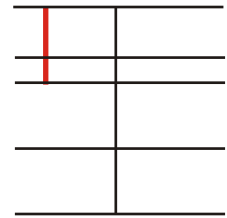
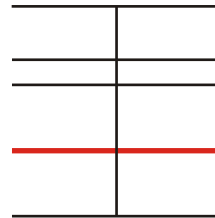
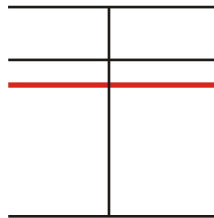
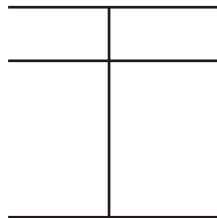
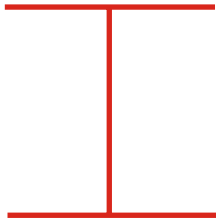
Waist Arc

15) Crotch Depth

16) Hip Depth

Hip Arc

26) Outseam



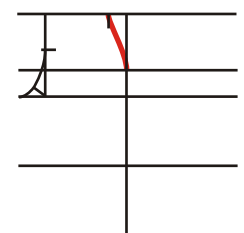
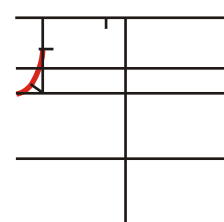
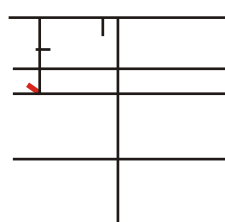
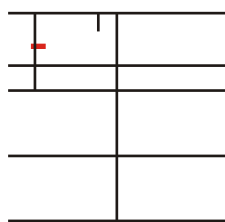
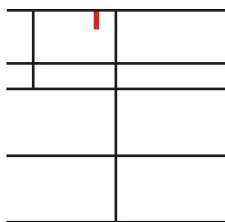
1) Side Seam- Pants length. Square out at top & bottom to both sides

2) Side Hip Depth- Measure down and square out to both sides

3) Crotch Depth- Measure down from top crotch depth and square out to both sides

4) Waist to Knee- Square out to both sides

5) Center Back- Formula: waist arc + ease (see Doll Chart)



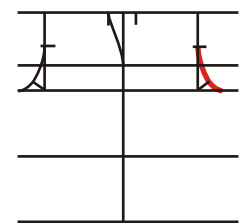
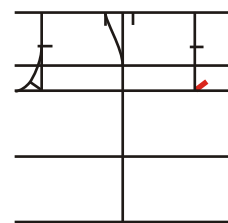
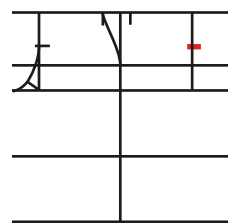
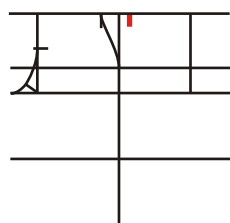
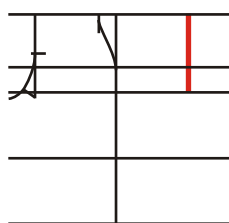
6) Back Hip Arc- From center back towards side seam

7) Back Hip Depth- From hip line measure up and mark

8) Crotch Bisect- At crotch level bisect (45° angle) and mark out according to Doll Chart

9) Crotch Curve- Using your French curve draw a curve from the mid-point to the crotch line touching the tip of the bisect

10)) Hip- Draw in hip line with French curve



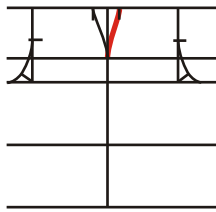
11) Center Front- Formula: waist arc + ease (see Doll Chart)

12) Front Hip Arc- From center front towards side seam

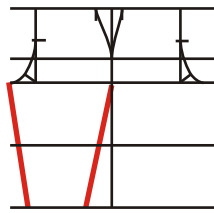
13) Back Hip Depth- From hip line measure up and mark

14) Crotch Bisect- At crotch level bisect (45° angle) and mark out according to Doll Chart

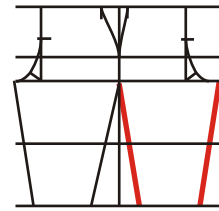
15) Crotch Curve- Using your French curve draw a curve from the mid-point to the crotch line touching the tip of the bisect



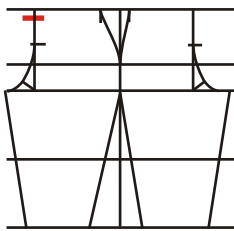
16) Hip- Draw in hip line with French curve



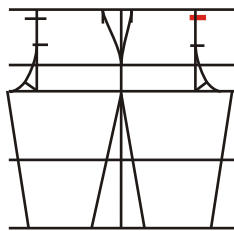
17) Inseam (crotch side)- Square down to bottom Inseam measurement
Outseam (side seam) -From Crotch level measure down Outseam measurement.
The distance between the lines at the bottom should be no smaller than the Around Foot measurement.



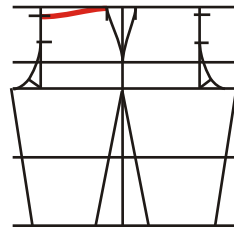
18) Inseam (crotch side)- square down to bottom
Outseam (side seam) -measure over around foot measurement and mark connect mark to crotch level line



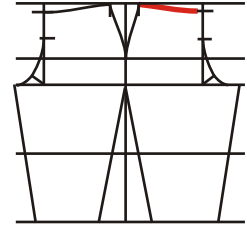
19)) Back Hip Depth- From hip line measure up and mark



20) Front Hip Depth- From hip line measure up and mark



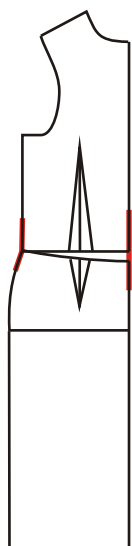
21) Waist- Curve from hip depth mark to hip line



22) Waist- Curve from hip depth mark to hip line

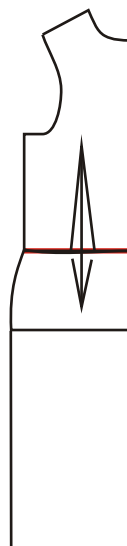
Torso Dress With Darts Lady

This is especially useful for developing linger style bodices and princess line garments. You will need a completed bodice and skirt draft that have been trued up and test fitted.



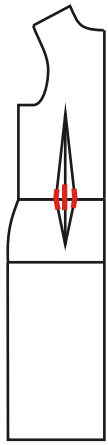
1) Trace off the bodice front completely making a tiny hole in your original pattern only large enough for your pencil lead
2) Mark the tip of the dart and the dart legs ends but do not draw in the dart, as it may be necessary to adjust the placement slightly to make it match the skirt. Line up the skirt matching center front and mark the darts in the same way.

3) Extend the center mark of your dart from waist to tip. This will aid you later when you have to match up the darts.



4) Trace around bodice completely. Mark dart tip, dart legs and center. Line up the center front of the skirt with the bodice center front. Line up the waist at the side seam. Trace around the skirt also marking the dart legs, centers and tip. Blend side seam at waist.

5) Draw in new waist straight across



6) Extend the skirt dart legs to the waist. Blend or redraw darts as necessary but do not change the dart width.

7) Finished pattern will have a center front or back that will match; a side seam that is smooth and a dart that is the same width at the waist.

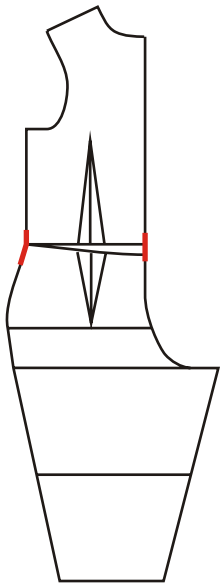


8) Check your fit and adjust where necessary.

9) Create back with side seam allowance between the pieces.

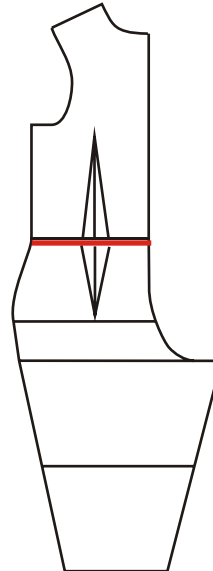
Torso Pants

This is useful for jumpsuits and once piece coverall outfits. You will need a completed bodice and pants draft.



1) Trace off the bodice front completely making a tiny hole in your original pattern only large enough for your pencil lead.

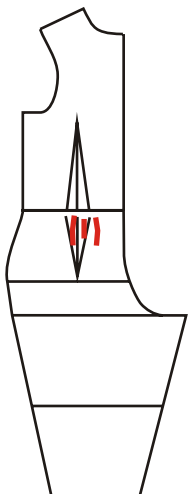
2) Mark the tip of the dart and the dart legs ends but do not draw in the dart, as it may be necessary to adjust the placement slightly to make it match the pant block. Line up the pant block matching center front and mark the darts in the same way.



3) Extend the center mark of your dart from waist to tip. This will aid you later when you have to match up the darts.

4) Trace around bodice completely. Mark dart tip, dart legs and center. Line up the center front of the pant block with the bodice center front. Line up the waist at the side seam.

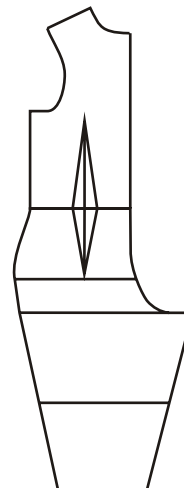
Trace around the pant block also marking the dart legs, centers and tip. Blend side seam at waist.



5) Draw in new waist straight across

6) Extend the pant block dart legs to the waist. Blend or redraw darts as necessary but do not change the dart width.

7) Finished pattern will have a center front or back that will match; a side seam that is smooth and a dart that is the same width at the waist.



9) Repeat for back

8) Check your fit and adjust where necessary.

Torso Dress No Darts

This draft is useful for a child's dress and as the basis for many garments and longer tops.

Check to be sure your skirt and bodice waists are the same and adjust slightly if necessary

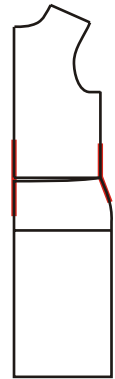
Trace your bodice front except for the waist. Only mark where it is

Line up the center front/back of the bodice and skirt and the side seams.

Trace the skirt.

Blend the waist.

Repeat for back with side seam allowance between the pieces.



Torso Pants- No Darts

Especially useful for rompers and one piece underwear for baby and child dolls

You will need a completed no dart bodice and skirt.

Check to be sure your pant and bodice waists are the same and adjust slightly if necessary

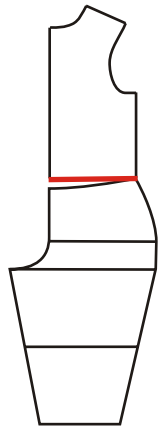
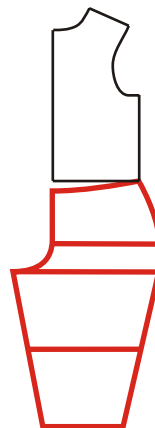
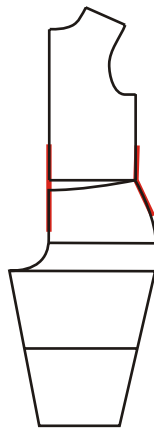
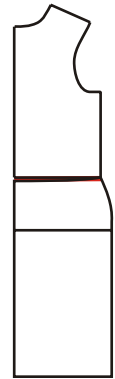
Trace your bodice front except for the waist. Only mark where it is.

Line up the center front/back of the bodice and pant and the side seams.

Trace the pant.

Blend the waistline.

Repeat for back



Truing

This section deals with truing the pieces up and checking your work to be sure that your first test fit comes close to fitting and needs as few modifications to the pattern as possible. Keep in mind that all first drafts will need some minor fitting adjustments no matter what you do.

Bodice

The first draft of each piece should be carefully cut apart and the following places checked for accuracy and 90 degree angles on both your front and the back

Neck- hold the pieces up to the doll to see if the neckline comes to about the right spot (about where a T-shirt would fall on a full size human)

Shoulders should be exactly the same length

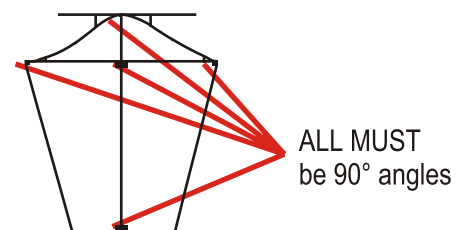
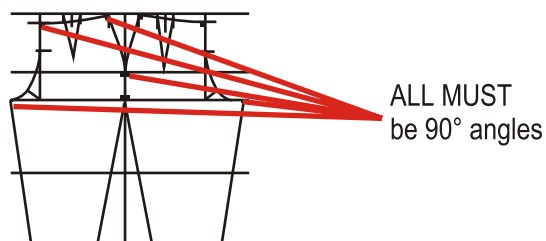
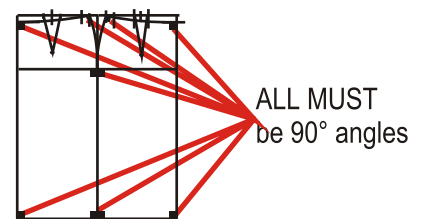
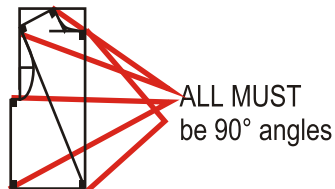
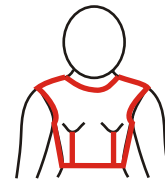
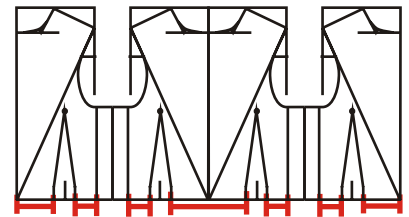
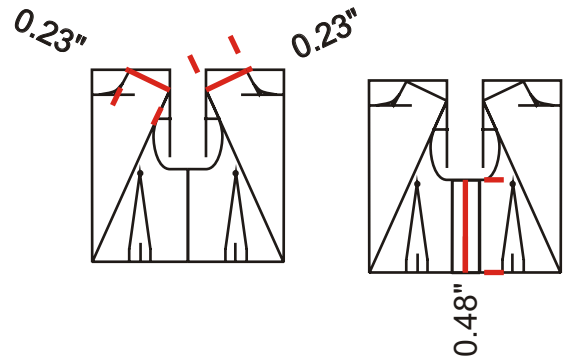
Side seams should be the same from armhole to waist

Waist minus dart (if applicable) and side seam allowances is the same as the doll's waist add double the front and double the back together to see if the measurement is the same as the doll's waist measurement

Neck- hold the pieces up to the doll to see if the neckline comes to about the right spot (about where a T-shirt would fall on a full size human)

Dart point lands in the right spot not off to one side or is too high

Your patterns will not go together right unless you are sure that the diagramed spots are a full 90 degree angle. Check these spots carefully.



Test Fit

This section gives basic instructions for a one sided test fit no lining included. It is meant to see if everything you have done so far falls in the right places. It is highly recommended that you do a test fit before cutting into your fine fabrics.

Use a dryer sheet to do a first test for all pieces

Bodice

Trace off bodice with the mirror falling at center front
transfer dart markings

Sew darts

Sew side seams

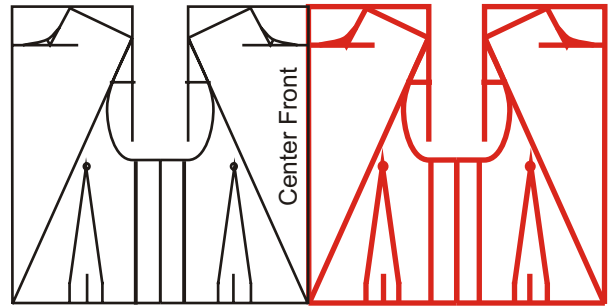
Hand sew shoulders together try up to doll

Check the following

Is it wide enough across the bust/chest and back?

Does the waist fit perfectly should you raise or lower the armhole or neck any?

Does the dart point come to the dolls bust?



Skirt

Trace off skirt pattern and mirror at center front transfer side hip, hip line and darts

Sew darts

Sew side hip together

Check the following

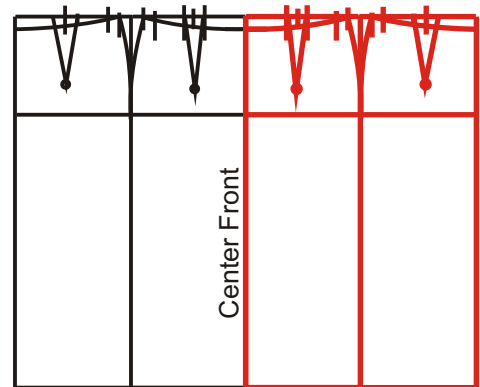
Does the hip line fall at the hip?

Does the hem fall at the knee ?

Does the waist fit the doll?

Do the darts match with the bodice darts?

Is the hemline straight?



Pants

Trace off pants pattern twice

Cut in a rectangular block

Transfer hip, crotch, darts and knee markings

Sew darts

Sew front crotch

Sew back crotch to just above hip line

Sew sides from hem to crotch and then from hip to waist

Check the following

Do the hip, crotch and knee lines fall where they should?

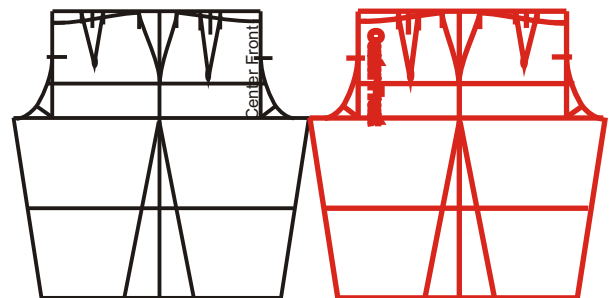
Does the waist fit ?

Do the darts match the bodice for placement?

Are the legs long enough?

Are the hems straight?

Can you get the dolls foot through at the hem?



Sleeve

Trace of sleeve pattern mark direct center and bicep line

Sew up side

Check the following

Can you get the dolls fingers through w/o too much trouble or are you likely to break them?

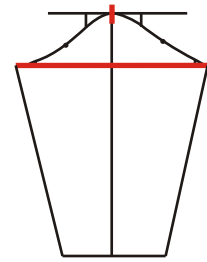
Is the length long enough?

Sew the sleeve in place by hand starting at the side seam and working your way around.

Check the following

Does the center line match at the shoulder and the center line go down the center of the dolls arm?

Is the sleeve cap too large or small?



Permanent Blocks

A permanent block is a useful tool to have when doing a stylization as it is made of thicker material than regular paper i.e. cereal box. Thus making it very easy to trace and move around as you make stylized patterns as in the next section.

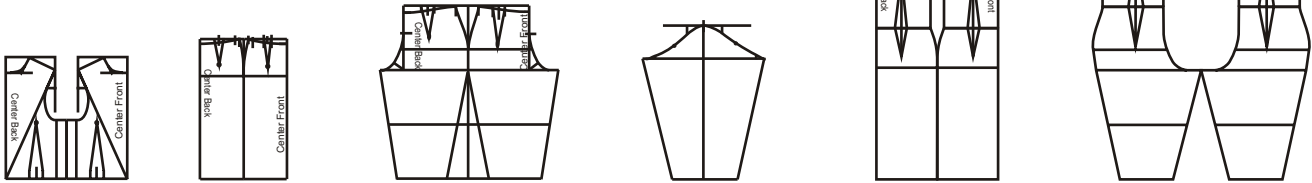
Using heavy cardstock or lightweight cardboard a manila envelope or anything similar.

Cut out your original drafts that fit right

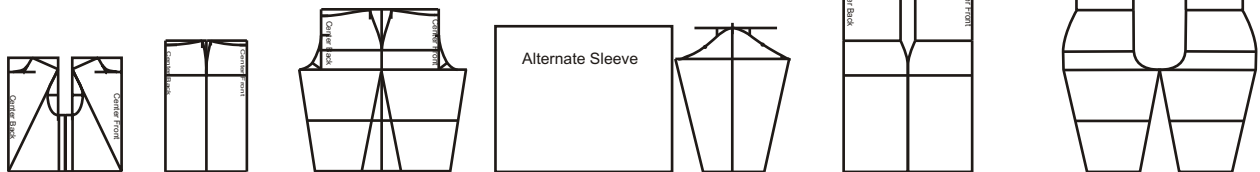
Using glue stick glue the lightweight paper to the heavy weight paper.

Allow drying time then cut out of the heavier cardstock. This will make tracing your blocks for modifications and stylizations much easier and you have an original set of pattern pieces you can go back to in case of a goof.

Basic Blocks Miniature Lady



Basic Blocks Miniature Child, Baby or Man



Section II

Stylizing the Patterns

Introduction to Section II

Pin n' Pivot

Slash n' Spread

Dart Manipulations

Bodice Styles

Necklines

Skirts Styles

Sleeves Styles

Pants Styles

Lengths Styles

Slacks Styles

Combinations

Details

Facing & Lining

Section II Stylizations

Introduction to Section II

Bodice

Moving Darts Around

Slash N' Spread

Pin N' Pivot

Princess Lines From Darts

Princess Lines With No Darts

Men's Shirt/ Lady's Blouse

Yokes

Necklines

Round

Square

V-neck

Scoop

Skirt

Skirt Lengths

A-Line

Flared

Gores

Tulip

Handkerchief

Skirts with Trains

Layered

Ruffles

Sleeve

Lengths

Long

Short

Puffed

Petal

Pants

Lengths

Slacks

Bell-Bottom

Shorts

Combinations

Torso Princess

Dresses

Pinafores

Jumpers

Jumpsuits

Rompers

One-Piece Underwear

Details

Shirt Collar

Round Collar

Square Collar

Peter Pan Collar

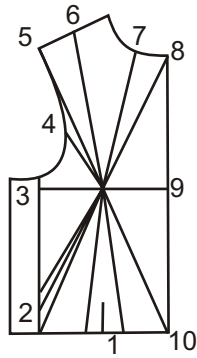
Waistband

Shirt/ Blouse Front Placket

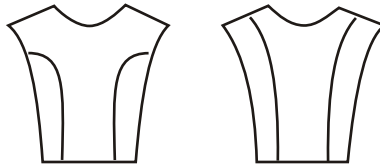
Cuff

Bodice Styles

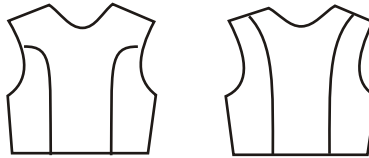
Moving Darts Around



Princess Lines From Darts



Child Princess Lines



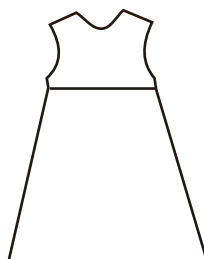
Men's Shirt/ Lady's Blouse



Yokes

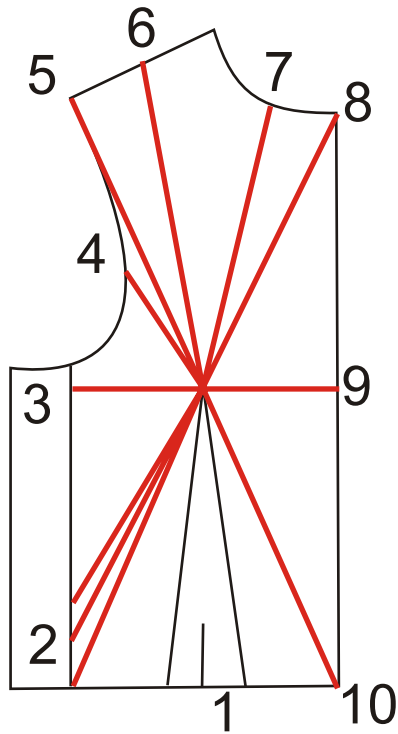


Child Yokes



Section II Stylizing the Patterns

Introduction



This section will show how to manipulate darts to create various styles. It will also show how to do some of the same styles with no darts needed.

There are 10 places you can move a dart, but only a few of those places are practical for a miniature doll. This section will show them all and talk about the most common ones used for styles for dolls. Moving the fullness to any of the points is the same idea as the ones talked about here.

waist - the one a basic block is drafted with

1) Waist Dart- the basic block is drafted with a single waist dart

2) French there are 3 variations on a French dart. Between corner and about 1/3 of the distance from the corner to the side seam dart.

3) Straight side dart- squared straight from center front at the bust point level. The other half of this line is the center front dart (talked about later)

4) mid-armhole - this one is commonly used as a base for creating an armhole princess bodice

5) shoulder tip- a dart that comes from the shoulder tip

6) mid shoulder- the other common point for a princess line to start from

7) Mid-neck- right in the middle of the neckline

8) center front neck- comes from the center front/neck point

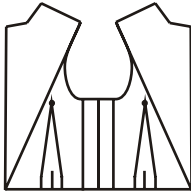
9) center front bust- directly across from the side seam dart at center front

10) center front waist- radiates from the center front to the bust

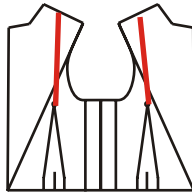
You can transfer the fullness of a dart to any point on the perimeter of a pattern these are just the most common places. You can also divide the dart up and transfer the fullness to multiple places or even curve the dart to create interesting styles. A dart can also be turned into pleats, tucks and gathers. The only limit is your imagination. This section will endeavor to help give you guidelines for how to do basic styles and some fancier styles.

Slash N' Spread

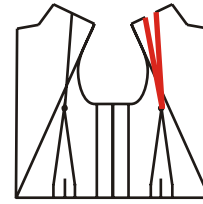
Slash N' Spread, just exactly what it says. Slashing a pattern at a specific pair of point opposite each other on a pattern and moving fullness to one or more places within the outer edge of the pattern. A very simple thing to do.



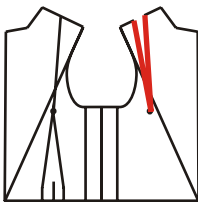
1. Make a copy of your basic block
2. Determine where you want the new dart to be see diagram on introduction page



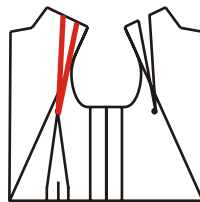
3. Draw lines from bust point to new end of dart



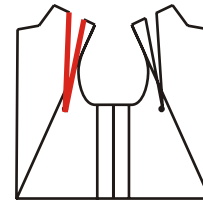
4 Cut out the dart and on the new line from opposite directions cutting to but not through the bust point closing the old dart legs and taping closed



5. Back the dart point off by 1/8" to prevent a pointy bust look for your garment

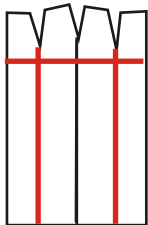


6. Do the same for the back cutting to but not through dart point, closing the old dart and taping shut

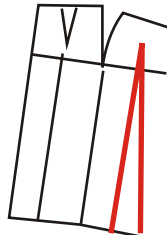


7. Back the dart point off by 1/8" to prevent a pointy bust look for your garment
8. Trace off your new pattern

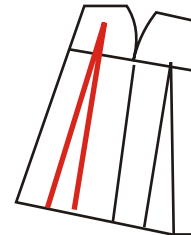
For a skirt or pant follow these basics



1. Draw a line from the hem to the bottom point of the dart



2. Cut out the dart and then cut to but not through the dart point and close the dart the desired amount, which will in turn add to your hemline circumference.

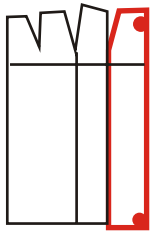


3. Repeat for back.
4. Blend your hem and trace off your pattern
5. For a sleeve alteration, follow the sleeve pattern's individual instructions.

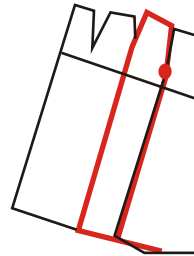
Pin n' Pivot

Pin n' pivot isn't as versatile as slash n spread and is a bit harder but sometimes a bit more useful. Both techniques are included to give you the option of using either. Pin n' pivot also uses less paper.

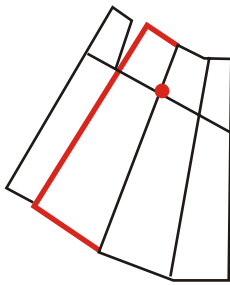
Skirt or Pants



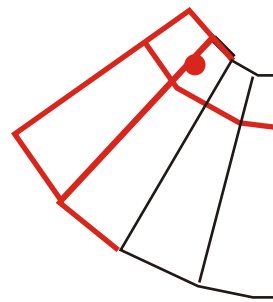
1. On a piece of thick corrugated cardboard or a bulletin board pin the original working block down at the waist and hem along center front.
2. Draw a guideline from the dart tips to the hem making sure it is square with the hem.
3. From the first guideline closest to center front, trace the first portion of the hem up center front to the first dart leg.
4. Trace the first dart's legs for reference.



5. Push pin the first dart leg down and pivot the dart closed
6. Then remove the center front push pins and pivot the pattern.
7. Trace both the hem areas between dart guidelines.
8. Hash mark the next dart leg.



9. Use a second push pin and pin down the dart point for the second dart.
10. With the dart closed pushpin down the hip/ side seam opening.

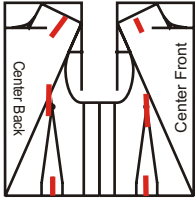


11. Then remove the first push pin.
12. Close the second dart.
13. Trace the waist and draw a straight line for the side seam.
14. Trace the hem to the guideline of the second dart.
15. Trace the center back area.

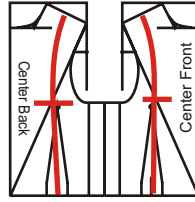
16. Remove your block.
17. Mark your hipline by hand the same distance as on your original pattern
18. Blend the hem and waist using your French curve.

Princess Lines for a Lady

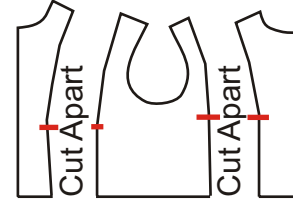
This will work to create a princess line bodice that either ends at the armhole or the shoulder. Shown is the shoulder princess.



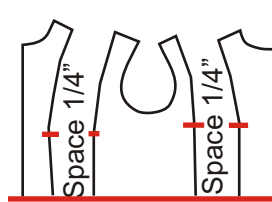
1. Trace working block
2. Square dart tips to center front/back and side
3. Mark either shoulder or armhole princess end point (mid shoulder or mid armhole)



4. Draw in style line. Label the pieces with CF (center front) SS (side seam) or CB (Center Back).



5. Cut apart along division line and cut out dart completely
6. Create a crosshatch

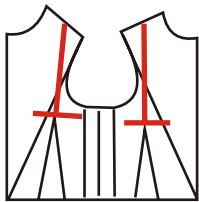


7. Line up just the center front so it is square
8. Trace and square the dart tip over 1/4"
9. Line up the dart tip level line and the waist on the bottom line and trace side seam piece marking the side seam lines and squaring the back dart tip out 1/4"
10. Line up the center back on the waist line and matching the dart tip line
11. Either pin or tape in place
12. Trace the pattern
13. Blend curves on side seam piece and on the center front/back pieces

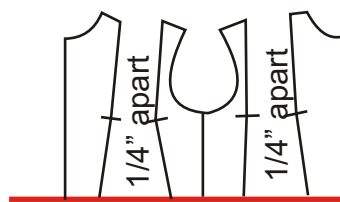
Be sure to leave the dart tip markings for guides for matching when sewing.
Test fit from a dryer sheet or paper towel, treating space between pieces as darts

Princess Lines For a Child

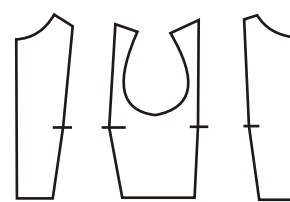
Creating a setup of mock princess style lines for a child's bodice is fairly simple



1. Find mid shoulder and mid waist and then cross mark mid body where the shoulder slope line is connect the lines and cross mark for notches for sewing guides



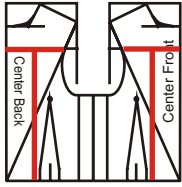
2. Cut it apart



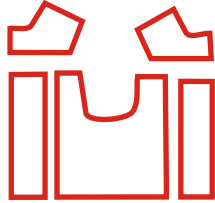
3. On a crosshatch line up center front on the vertical and the waist of each piece on the horizontal. Space the pieces 1/4" apart this will be your seam allowance. Be sure your notch marks are lined up.

Blouse or Shirt

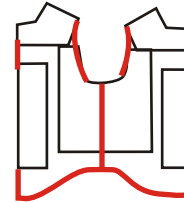
A basic shirt or blouse, it can be used as a base of a blouse or shirt with a yoke.



1. Trace your working block and square from mid armhole mark to center front. Then divide the lower portion of the bodice vertically



2. Cut it apart
3. Keep the side seam section lined up to keep your armhole the same but lengthen the center front and back as desired keeping in mind the 1/8" drop from the bottom of the pattern for the shirt tail stylization.

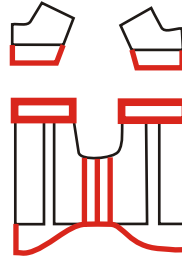
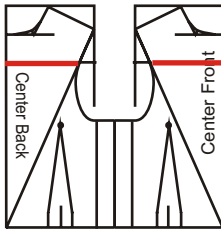


4. For the shirttail stylization: lengthen 1/8" below center front and center back and square out 1/8" towards center. For your highest point: the center where the side seam

Allowances should be squared and no lower than even with the original center front and center back pattern pieces. From the end of the bottom points use your French curve to make a shirttail style meeting up with the center section for both the front and the back.

Yoked Blouse or Shirt

Decide where your yoke will be and if it will have any fancy style lines

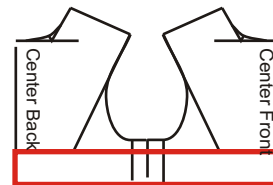
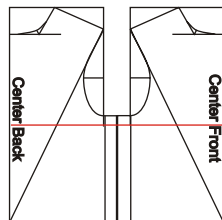


1. Cut the pattern apart on your desired line and add 1/8" seam allowance
2. Cut apart the bottom section and spread no more than 1/4" total

3. Add 1/8" seam allowance to the top
4. For the shirt tail: drop the center side seam allowances 1/16" and the sides each 3/16" square center front and back across 1/8" and center the width of the seam allowances curve between

Child Yoke

The basis for a yoked top dress for a baby or child doll



1. Square across about 1/8-3/8" below armhole OR you may stylize the yoke.

2. Cut off and discard lower half
3. Add 1/8" seam allowance to top half
Draft an alternate skirt using your choice for fullness. Add 1/8" seam allowance for the top and 3/8 for hem. Creates a very small but adorable little girls dress.

Necklines

Round



Square



V-Neck



Scoop

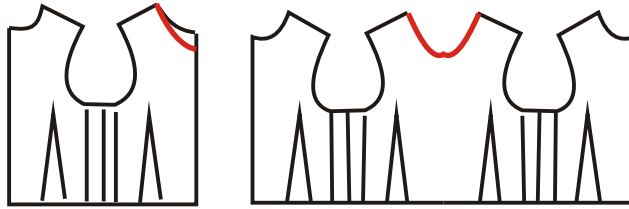


Round Neck

✍ Lower the neckline $\frac{1}{8}$ " below normal and curve from shoulder to new level leaving $\frac{1}{16}$ " squared at the shoulder and at center

✍ It may help you visualize the finished product if you cut the pattern piece out on the fold so you can see what the results will look like approximately.

It is advisable to leave the back alone or to only lower it a little tiny bit using the same technique

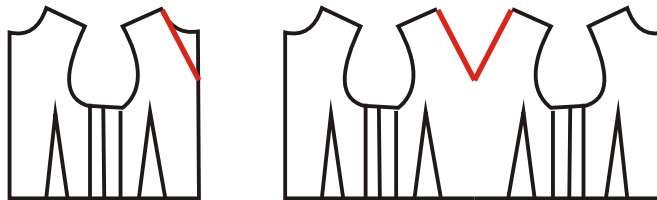


V-Neck

✍ From the shoulder very slightly curve on an outward arc and end in a point at your desired depth

✍ Go no deeper than $\frac{1}{8}$ " above the dart point or the neckline will plunge too deep.

✍ You may want to cut out the piece on the fold of paper to see if the style line suits your desired effect.



Square Neck

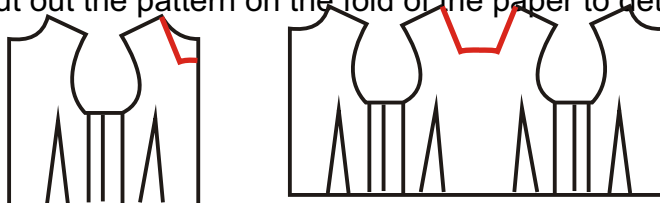
✍ Determine depth of neckline and square in $\frac{1}{16}$ "

✍ Determine how wide you want the square to be total and divide in half. Mark in and down from first line $\frac{1}{32}$ " or about 3mm.

✍ Curve ever so slightly between the two to connect them.

✍ Use your French curve to draw another slight curve toward center, from shoulder to outside of base curve.

✍ You may want to cut out the pattern on the fold of the paper to determine if you achieved your desired neckline.

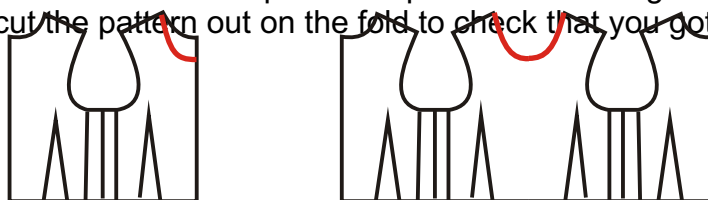


Scoop Neck

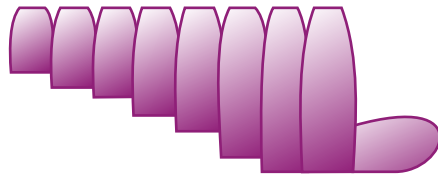
✍ Determine the depth you want for the scoop.

✍ Use your French curve to draw a curve that is bent slightly towards center and up on bottom. It should still be square at the center to prevent a point from forming.

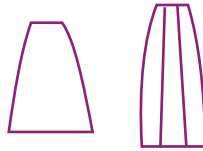
✍ You will want to cut the pattern out on the fold to check that you got the desired depth and width.



Skirt Styles



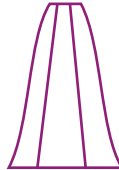
Skirt Lengths



A-Line



Flared



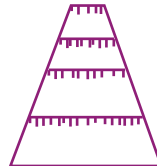
Gored



Tulip



Trained



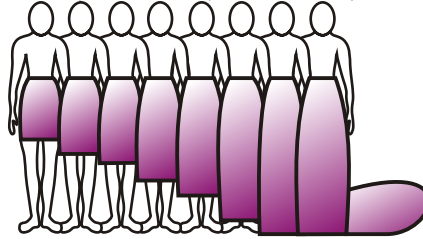
Layered



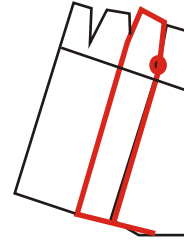
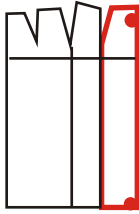
Ruffles

Skirt Lengths

From left to right: Micro Mini, Mini, Knee, Mid-calf, Ballerina, Ankle, Floor and Trained

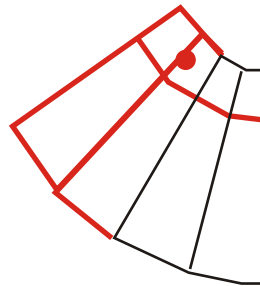
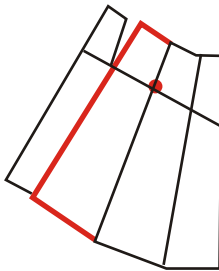


A-Line Skirts



1. If you did a practice of the pin n' pivot then this is the same thing you can use your practice skirt.
2. On a piece of thick corrugated cardboard or a bulletin board pin the original working block down at the waist and hem along center front.
3. Draw a guideline from the dart tips to the hem making sure it is square with the hem.
4. From the first guideline closest to center front trace the first portion of the hem up center front to the first dart leg.

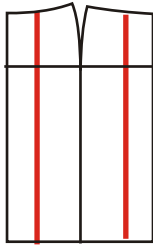
5. Trace the first dart's legs for reference. Push pin the first dart leg down and pivot the dart closed
6. Then remove the center front push pins and pivot the pattern.
7. Trace both the hem areas between dart guidelines.
8. Hash mark the next dart leg.
9. Use a second push pin and pin down the dart point for the second dart.



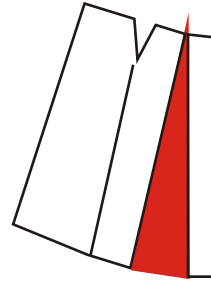
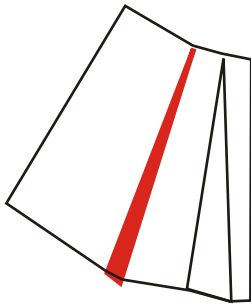
10. With the dart closed pushpin down the hip/ side seam opening.
11. Then remove the first push pin.
12. Close the second dart.
13. Trace the waist and draw a straight line for the side seam.
14. Trace the hem to the second dart's guideline. Trace the center back area.

15. Remove your block.
16. Mark your hipline by hand the same distance as on your original pattern
17. Blend the hem and waist using your French curve.

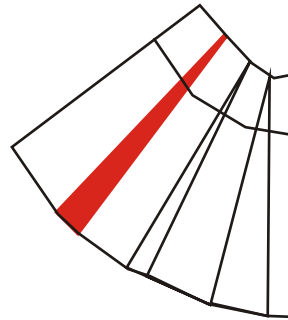
Child



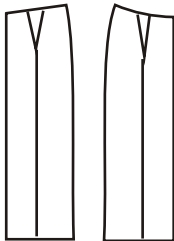
Draw a straight line that is square with the hem mid way between side seam and center Cut on first line



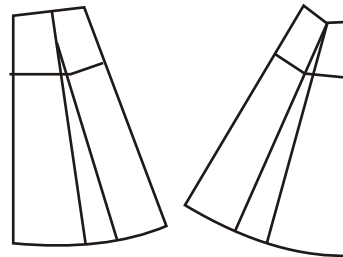
✂ Cut on second line Cut final lines, spread all pieces the desired amount and tape down. Trace pattern. Remove original and blend waist and hem curves.



Flared Skirt Lady



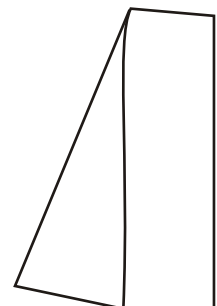
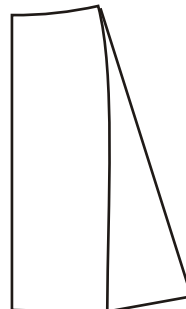
✂ Draw a guideline from the tip of the dart to square with the hem



✂ Cut to but not through the dart tip and close the dart blend the waist and hem

Child

✂ Measure your side seam. From the waist following the angle of the hip curve draw a line the length of your side seam. Curve gently to meet original pattern be sure that you have a square at the corner of the new side seam and the hemline

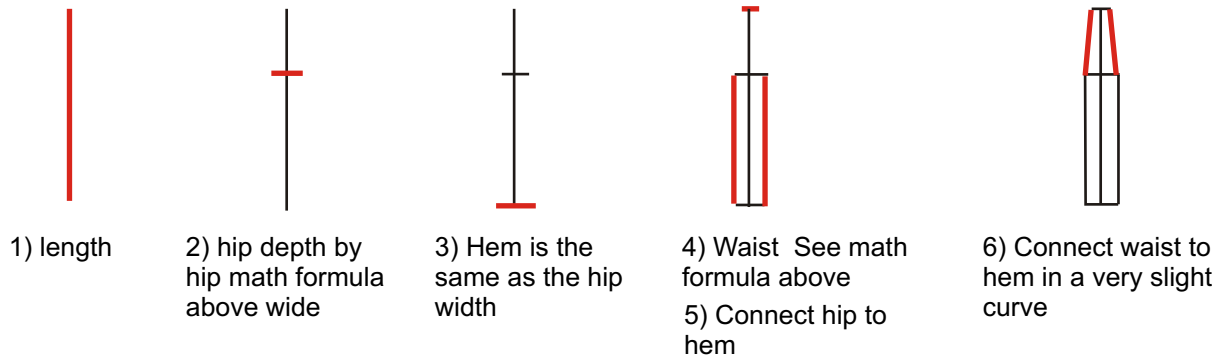


Gored Skirts

Here is the exception to the rule for stylizing a skirt. A gore skirt requires a fresh draft but is a very versatile skirt as it creates many of the flared and fuller styles. This draft requires a mathematical formula that is very simple to do.

✍ For a 6 gore skirt the formula is as follows: $\frac{1}{6}$ th of waist (full waist not the arc) gives you what the waist will be across the $\frac{1}{6}$ th piece. $\frac{1}{6}$ th of hip (full hip not the arc) gives you what the hip will be across the $\frac{1}{6}$ th piece. For measuring to either side divide that answer in half and mark that number to either side of the center length line for both the waist and the hip. You can substitute 12ths or 8ths or even 4ths if desired but the number has to be an even number or it won't work.

✍ Please note that this particular diagram is a 6-gore skirt drafted to fit a $\frac{1}{2}$ scale doll and does work and fit her.



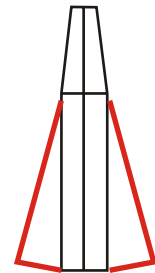
Cut out the number of required pieces. This is whatever it was you divided by to get your waist. In this case 6 was used so it would be cut 6.

Tulip and Variations

These are a few of the variations you can do to a basic gored skirt. The patterns illustrated here were developed off the gored skirt.

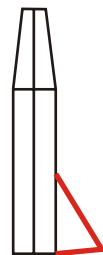
Basic Flared

You can flare the hemline from anywhere along the side seam and any desired amount as long as your centerline is your desired skirt length and your side seam length is the same no matter what the angle. Be sure the corner is squared and the hemline is gently curved.



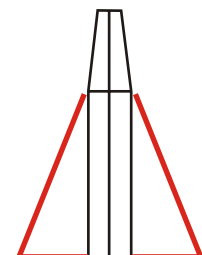
Tulip

Add your flare to one side and match a straight side to a flared side to get a tulip flower shape. You can have the flare start anywhere on the side seam but your side seam that is flared must be the same as the straight side seam for it to come out right



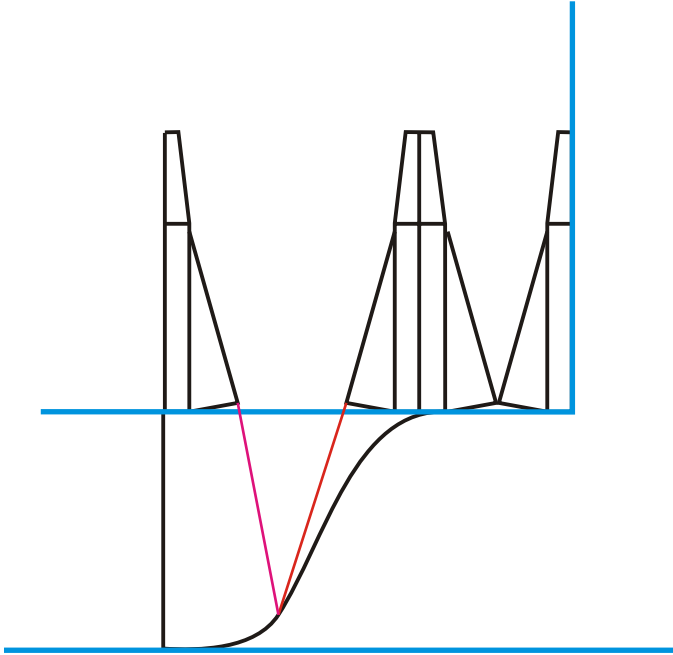
Handkerchief

✍ A handkerchief hemline gives you the beautiful points on the hem and this is one of the few patterns where you do NOT make sure to square the side seams at the hem.



Trained

Also developed off the same pattern as the gored skirt and the variations on previous pages.



1. Line up 3 pattern pieces for a full $\frac{1}{2}$ of your doll's skirt pattern, at the corners of the hem
2. Extend a line from the bottom corner of one skirt piece the desired length of your train and square $\frac{1}{8}$ " at bottom
3. From the middle piece's center line start curving as illustrated in a sweeping motion to get a beautiful wedding style train

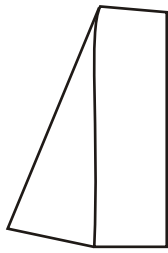
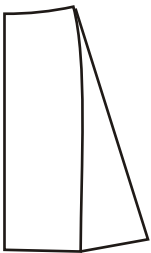


Layered

A layered skirt is drafted using the alternate skirt draft and customizing it to the desired style and then gathering them together.

✍ Draft an alternate skirt $2\frac{1}{2}$ times the width of the waist by $\frac{2}{3}$ of the length of the first skirt (pink)

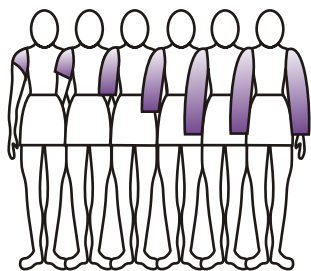
✍ Draft an alternate skirt 3 times the width of the waist by $\frac{1}{3}$ of the length of the first skirt (yellow)



Ruffled

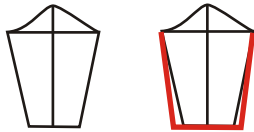
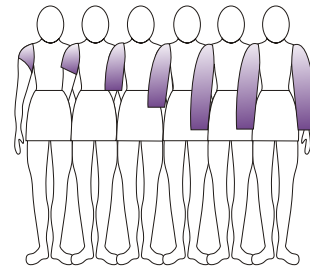
Use the basic skirt of your choice shortened the amount of the ruffle for a ruffle at the bottom or marked on the pattern and fabric where the ruffle will go for a ruffle higher up Use the alternate skirt pattern with your choice of minimum of 2 times the circumference of the skirt to get a ruffle pattern. This can be cut on the straight grain or the bias for different effects





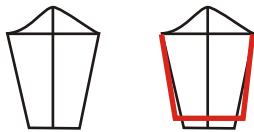
Sleeve Lengths

Cap, Short, Elbow, $\frac{3}{4}$ -Length, Above Wrist, Below Wrist, Long



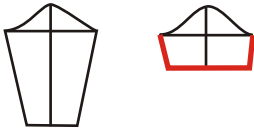
Long Sleeve

Starting with the basic pattern trace completely Add about $\frac{1}{16}$ – $\frac{3}{16}$ " to each side at wrist for ease. Connect bottom of cap to wrist



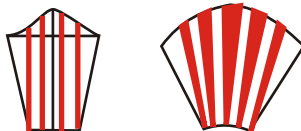
Short Sleeve

Use basic block as a guide and mark desired sleeve length. Cut off pattern along desired line



Shirt Sleeve

Use basic block as a starting point Shorten amount of desired cuff depth no more than $\frac{1}{4}$ ". Widen a total of $\frac{1}{8}$ ". Cuff is covered in Details section



Fullness Top

Draw lines from cap to hem Cut from cap to but not through hem and spread evenly until desired fullness is achieved. The further apart the individual sections the more fullness you have to gather into a tiny armhole



Fullness Bottom

Draw lines from cap to hem Cut from bottom to top to but not through all the way. Spread evenly or unevenly as desired. Creates a sleeve that is narrow at the top and very full at the bottom.



Petal

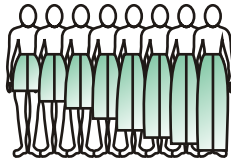
Based on the short sleeve using the fullness at the top and bottom principals just covered. Be sure you have marked your center line at the top

✍️ Slash n spread both the top and the bottom just a little enough to give you gathers at the top and fullness at the bottom for a sweeping curve. Be sure you know where your center of the cap mark is so your sleeve can be put in to your armhole straight

✍️ About $\frac{1}{8}$ – $\frac{1}{4}$ " to either side of center start your style lines to cross at about the middle of the sleeve. Trace first one side and mark the center and then the other side and the center.

✍️ Smooth the style line and bottom edge. The center mark serves as a meeting point in the armhole for the pieces to meet and overlap.

Pants Styles



Lengths



Slacks



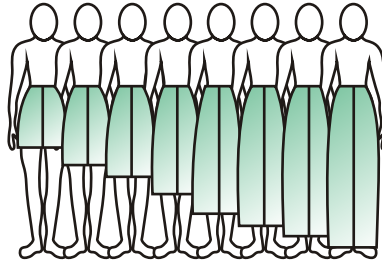
Bell-bottom



Shorts

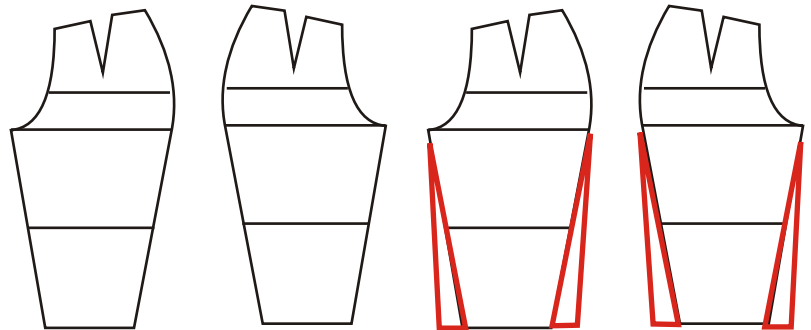
Pants Lengths

Shorty Shorts, Shorts, Jamaica, Bermuda, Pedal Pushers, Toredos, Capri and Ankle



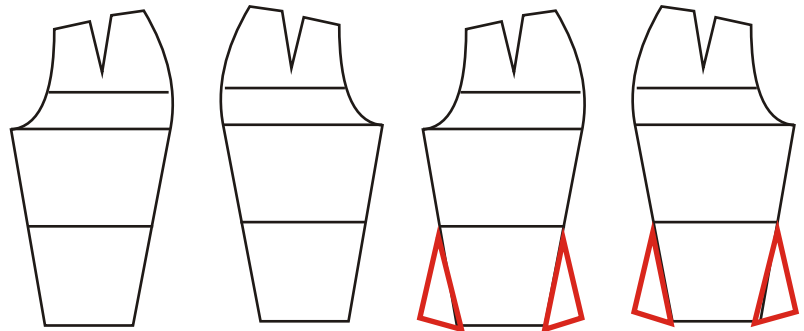
Slacks

Use finished basic pant
Add and straighten inseam and
outseam from crotch level down
equally on both sides and the
same amount on front and back.
Finished pattern



Bell Bottoms

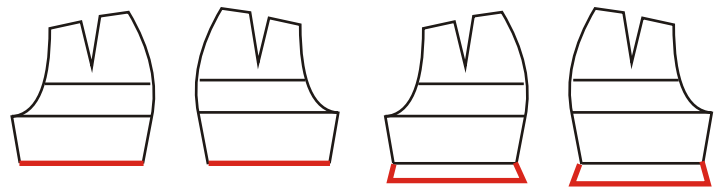
From knee level or lower flare
your pant leg the desired width by
doing the following: Measure your
side seam from your chosen point to
the hemline. From the chosen
draw a line the length of the
measurement you just took. From
the end of the line at the bottom,
curve gently to meet original
pattern be sure that you have a
square at the corner of the new
side seam and the hemline.



Shorts

Start with basic pant
Cut off to desired length and apply
slash n' spread or pin n' pivot
techniques to flare the bottom if
desired

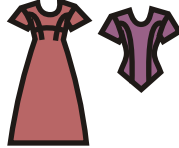
Then cut out pant leaving excess
along sides and bottom. Fold up
on bottom line and trace sides for
desired hem amount and draw
straight across. Unfold and cut out
remaining sides.



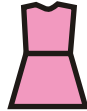
Combinations



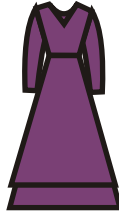
Torso Princess



Dresses



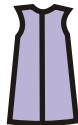
Pinafores



Jumpers



Jumpsuits



Rompers



One-Piece Underwear

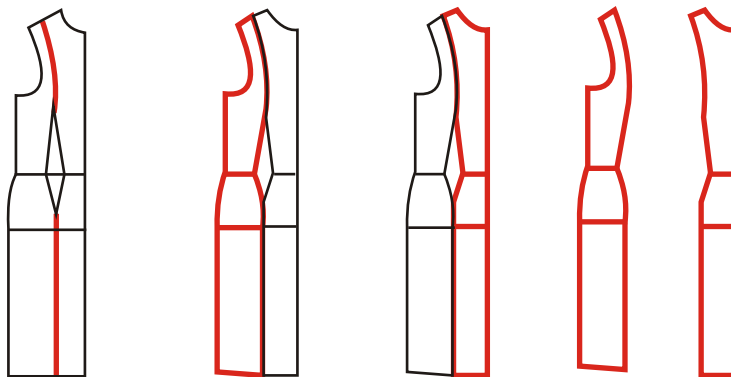
Torso Princess

This style is particularly useful for long dresses you do not want a waist seam.

Decide on either armhole or shoulder princess lines.

1. Draw a line from that point to tips of darts. Shown is the shoulder princess.
2. Trace off the left half of the bodice including the darts as they are. Be sure to transfer the waistline and hipline as these will be necessary for any stylizations you wish to do.

Trace off the right half of the pattern. Be sure to accurately mark the waist and hip again as these marks will also aid in construction later also. Smooth the style line and darts into curves.



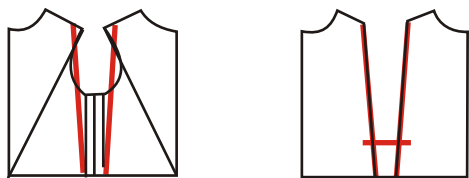
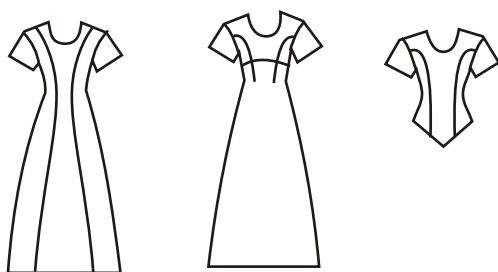
Dresses

Dress styles based off a princess torso pattern can be created the same way as modifying a basic bodice or skirt. However a few minor spots need to be watched when doing torso manipulations, such as the waist if using slash n' spread. So pin n' pivot is recommended for torso manipulations.

Cutting in the desired spot can easily do a basic Empire dress or a high waisted fitted skirt. You can flare or add fullness to the skirt in the same fashion as a basic skirt just make sure that your seams are the same length.

Pictured below are some basic designs that can easily be done from a torso princess block.

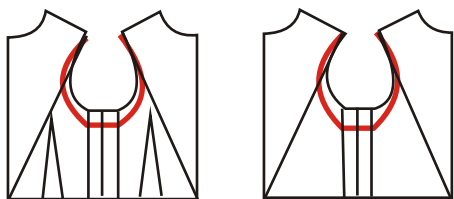
Flare the skirt and add a sleeve of your choice Stylize the empire for just under the bust and cut off. Stylize the bottom half as desired. Not just dresses can be created with the torso princess pattern. You can also do longer bodices as in historical garments.



Pinafore

1. Shorten the shoulders from the armhole back about 1/16". Connect that point to the waist where the seam allowance is not center. Repeat for back.

Mark across where your new side line crosses the old one. To form side seam, sew from waist to cross mark. Add ruffles as desired. Use the alternate skirt for bottom half along with for ruffles. Add other details as desired.



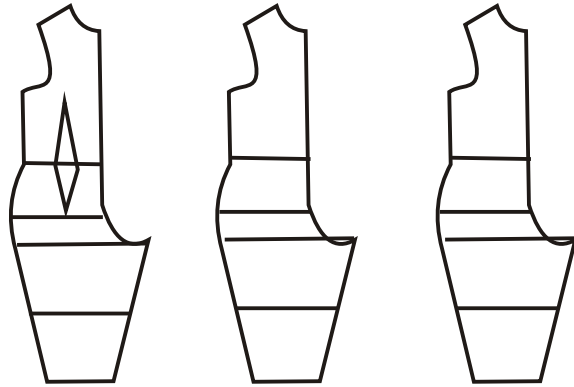
Jumpers

A jumper is nothing more than a regular bodice but with extra-added ease more than for just a regular dress since it goes over a regular dress or blouse.

- Drop your armhole 1/8" (1/16" for 1/2 scale) and move the mid-armhole in towards center by 1/16" ignore darts if any to give the jumper the ease needed. If this is for a child doll add 1/8" total extra to side seams only for ease.

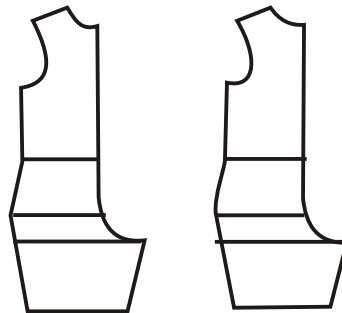
Jumpsuits

Ignore your dart if you are using the lady's torso. It is now your ease. Square from floor to hip level even in width to the hip. Add a small rectangular piece about a total of a $\frac{1}{4}$ " wide and from neck to about $\frac{1}{4}$ - $\frac{3}{8}$ " above hip line. You now have a one piece coverall and the basis for rompers for children and one piece underwear for a baby.



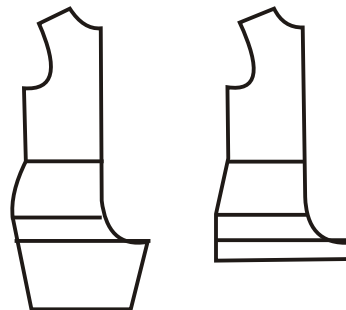
One-Piece Underwear

Cut off about $\frac{1}{4}$ - $\frac{3}{8}$ " below crotch from either the full torso or the romper pattern. Square off.



Rompers

Cut off your basic torso at knee or just above. Square up from hem level to hip and crotch.



Details



Shirt Collar



Round Collar



Square Collar



Peter Pan Collar



Waistband



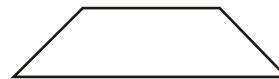
Cuff



Placket

Shirt Collar

- Measure your pattern's neckline both front and back being sure that if you only have half front and back to double the number. This measurement is your short side measurement.
- Width is your desired height that you want the collar to go up the neck for most small dolls no more than about $\frac{1}{2}$ - $\frac{3}{4}$ "
- Add $\frac{1}{2}$ " to the short side for the bottom
- Draw your short side
- Measure down the desired width and extend the line evenly i.e. short side is 2" your long side will be 2 $\frac{1}{2}$ " but will be $\frac{1}{4}$ " longer on either end. Connect your sides you should end up with a parallelogram for a pattern shape.



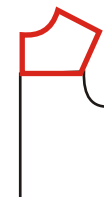
Round Collar

- Determine desired depth for collar's center should be at least the same length as the shoulder length
 - Trace neck and shoulder which will be the same length as the collar's center depth
- Curve from shoulder to center



Square Collar

- Determine depth of collar at center (At least shoulder length)
- Trace neck and shoulder
- Square from center to armhole connect to shoulder



Peter Pan Collar

- Trace neck and $\frac{1}{2}$ of shoulder length or desired depth for collar.
- Curve from center neck to shoulder endpoint.



Waistband

- Width is $\frac{3}{4}$ -1 $\frac{1}{4}$ "
- Length is doll's waist plus $\frac{1}{8}$ " ease



Cuff

- Determine desired cuff width.
- Draw your cuff double this width by doll's wrist measurement.



Placket

- Determine desired placket width.
- Measure blouse or shirt's front where placket will go.
- Draw your piece this length by double desired width.
- Add it to the center front or center back of your regular piece by lining up the straight edges



Section 3 Construction

Introduction

Seam Allowance

Figuring Yardage and Layout

Cutting

Constructing Bodices & Sleeves

Constructing Skirts

Constructing Pants

Constructing Combinations

Intro

This section is meant as a guide to constructing basic garments using the basic pattern and stylizations.

It is divided into several sub-sections, Figuring Yardage, Cutting (Basic), Cutting (More Complex), Constructing Bodices, Constructing Skirts, and Constructing Pants & Constructing Combos. Within the Bodice and Combos sections will also be instructions for the sleeves since sleeves can be put with each. Each section is for constructing the previous Stylizations in Section II and will also include instructions for the Details to be added in where appropriate.

All construction information is meant for the item to be sewn but gluing seams is also an option although not recommended.

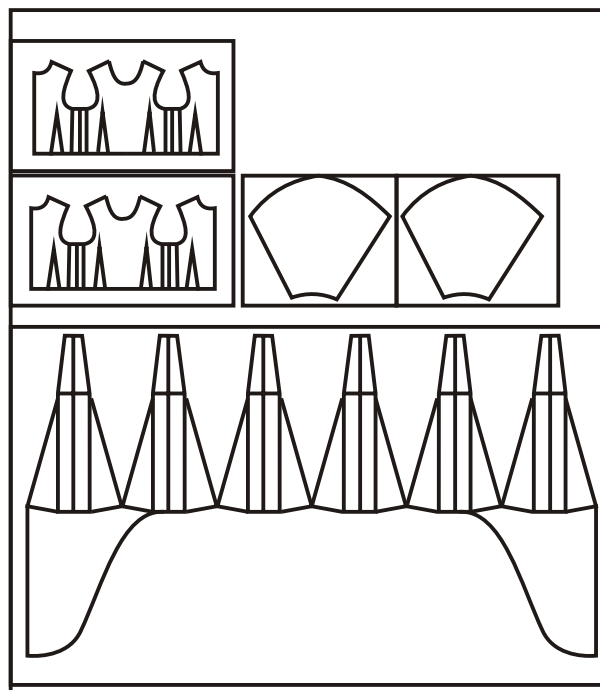
You must remember that these are guides for construction and final techniques are determined by your design.

Figuring Yardage & Layouts

Depending on what type of fabric you are using and what kind of print or possible nap or one way design it may have will determine your yardage along with how well you can come up with your own layouts. Layouts are done on a single layer of fabric.

Generally miniatures are done on a solid colored fabric in fine cotton or silk on a single layer, therefore you have to worry about the shine of the fabric. To determine this take the piece outside and fold one corner over to the other side and see if you can see any subtle difference in how the fabric looks. If there are differences decide which side and way you want the shine or coloring to be on the garment. Once you have decided which way is up you can take your pieces and place them on paper to play around with how to fit the pieces together best on the fabric. If you have no shine to worry about then you can flip and turn the pieces almost anyway you want except cross grain to save as much fabric as possible. Please remember that you will want to have a little space around each piece for sewing as you will trace off the pieces and your lines will be the seam lines. Leave adequate space so your sewing machine doesn't choke and swallow your piece when you go to sew it ruining your project.

When you are satisfied with the space between the pieces approx. 1/2-3/4" total then trace on your paper the layout and draw rectangles or squares around your pieces. Then duplicate it on your fabric. By tracing your pieces on paper you will have a record of what layout you used with your pattern pieces in case something gets lost you have a backup.

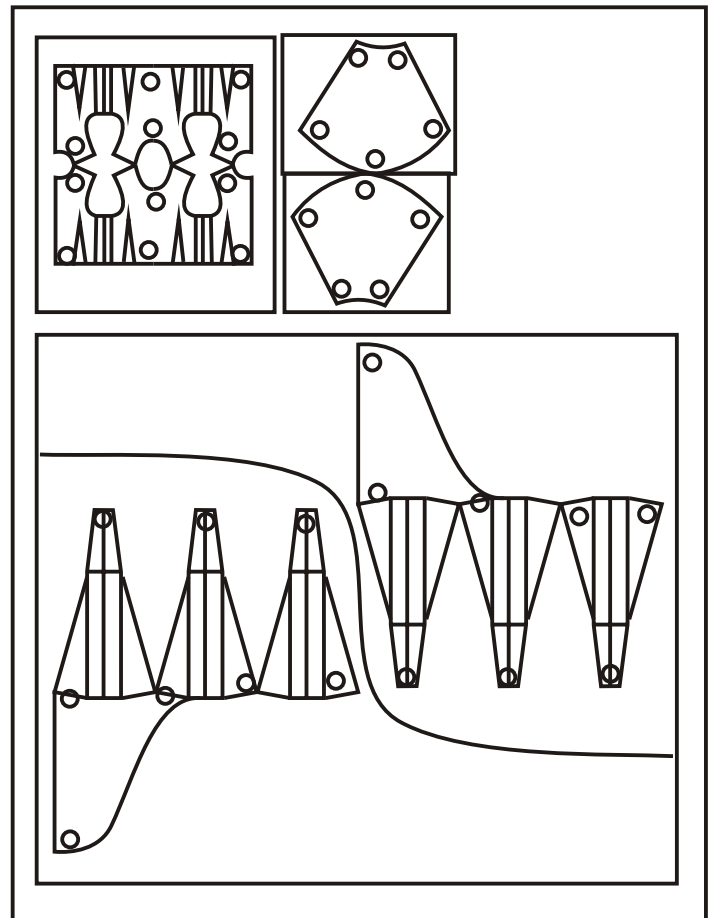
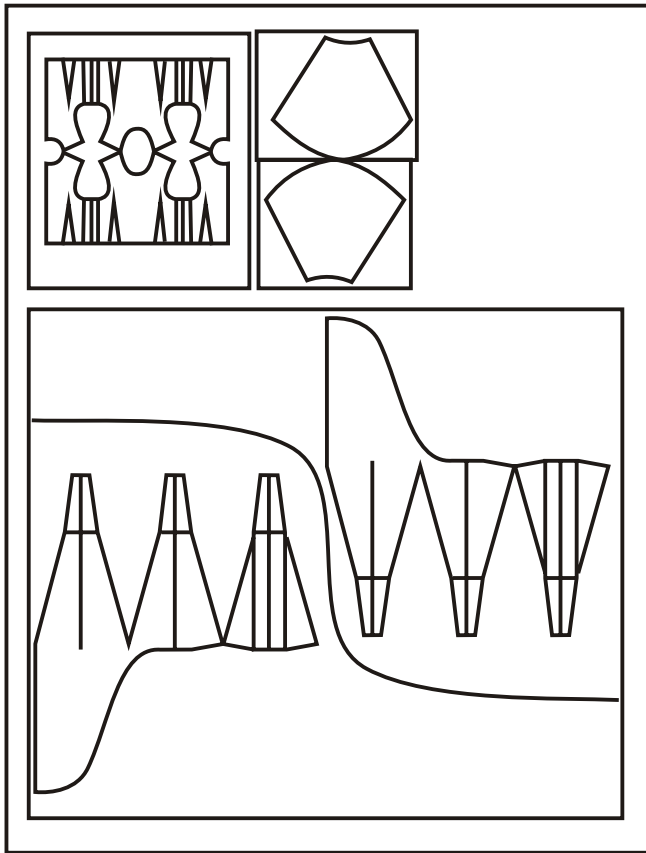


Cutting (Basic)

Once you have determined yardage and a layout. Layout your fabric single layer and move your pieces to your fabric but do not use pins to hold the pieces down use 1 pound fishing weights, lead shots or tiny magnets to hold the pieces down.

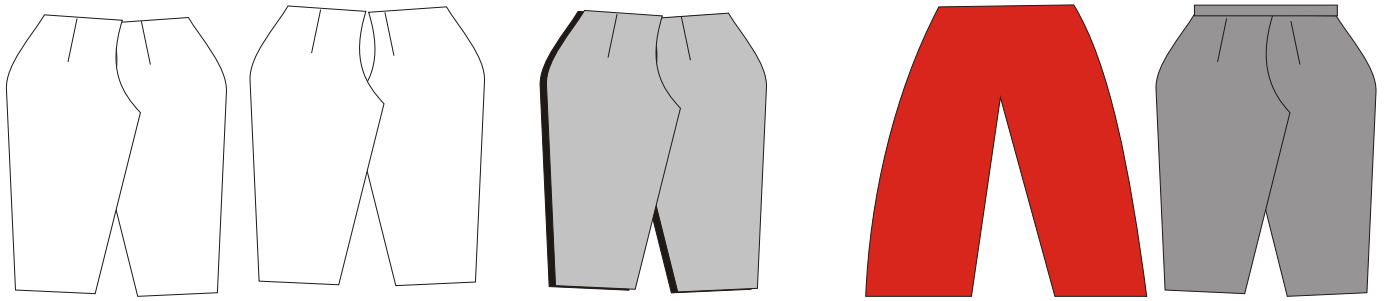
Use a sharp-pointed, soft lead pencil or a colored pencil that is close to your fabric color. A chalk pencil can also be used.

Noting the rectangles or squares on your paper layout you may wish to trace those off too and cut on the lines of the rectangles or squares. Once all your pieces are cut out in the number needed for a garment you will want to cut the mock interfacing a.k.a. a used ironed dryer sheet for just the bodice



Constructing Pants

Pants are about the easiest to construct. Sew your darts if there are any. Sew the front and then back crotch seam leaving an opening as appropriate. Sew side seams and then sew the crotch. With pants it doesn't matter the style the basics are the same. Add a waistband as needed or desired.



Constructing Combos

Most of the same things apply when doing items that are made from the torso dress or torso pants combination patterns. Treat princess lines as darts. Consider using a plain-darted piece for a fitted princess dress' lining with the skirt flared the same just not princess lined. Add overlaps for rompers and jumpsuits for closings.

Bodices & Sleeves

- 1) Shoulder seams
- 2) Add in a collar with or without facing. For with facing sandwich the collar's (right side up on the bodice) neck edge between the bodice and the facing or lining. For no facing or lining place collar right side to the wrong side of the bodice and stitch.
- 3) next add in the sleeve gathering the top as desired to fit to the armhole. Hem and add elastic before sewing to the bodice or wait if adding a cuff.
- 4) Set sleeve into armhole then sew underarm seam and add cuff if you didn't hem and add elastic. Fold over the back edge and add a closure of buttons, snaps or velcro.

Skirts

Skirts are very easy to sew. A straight skirt with darts is basically just that do the darts sew the side seams and partially up the back and add a closure. Then attach a waistband. Hem.

Gathered skirts are just as easy if not easier. Gather the fabric to a waistband and sew together enclosing the raw edges in the waistband. Add a closure to the waistband Then hem.

Alternately you can make a casing on one long edge and just sew up the back seam and add elastic and hem too.

Appendix

Fractions to Decimals

Special Thanks

Bibliography

Glossary

Fractions to Decimals

$$1/32 = .03125$$

$$1/16 = 2/32 = .0625$$

$$3/32 = .09375$$

$$1/8 = 4/32 = .125$$

$$5/32 = .15625$$

$$3/16 = 6/32 = .1875$$

$$7/32 = .21875$$

$$1/4 = 8/32 = .25$$

$$9/32 = .28125$$

$$5/16 = 10/32 = .3125$$

$$11/32 = .34375$$

$$3/8 = 12/32 = .375$$

$$13/32 = .40625$$

$$7/16 = 14/32 = .4375$$

$$15/32 = .46875$$

$$1/2 = 16/32 = .5$$

$$17/32 = .53125$$

$$9/16 = 18/32 = .5625$$

$$19/32 = .59375$$

$$5/8 = 20/32 = .625$$

$$21/32 = .65625$$

$$11/16 = 22/32 = .6875$$

$$23/32 = .71875$$

$$3/4 = 24/32 = .75$$

$$25/32 = .78125$$

$$13/16 = 26/32 = .8125$$

$$27/32 = .84375$$

$$7/8 = 28/32 = .875$$

$$29/32 = .90625$$

$$15/16 = 30/32 = .9375$$

$$31/32 = .96875$$

$$1 = 16/16 = 8/8 = 32/32$$

Bibliography

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Helen Joseph Armstrong

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There are now 3 editions of this book. This book was based off of first edition, which covers ladies wear exclusively.

Online and Offline Resources Main Pages

<http://collectdolls.about.com/hobbies/collectdolls/library/weekly/aa061599.htm>

Favorite Search Program

Copernic

Available at <http://www.copernic.com>

This program searches all the main search engines including Google and Yahoo. It also allows you to save the results. It was the only program used to find information for this book.

Special Thanks

- ✍ My daughter for keeping me sane and dragging me out and away from the book so I'd come back with a fresh perspective although she didn't understand what I was doing. (She was only 6 months old when I started)
- ✍ My husband for letting me bounce weird ideas off of him even though he doesn't sew and has no interest in dolls often he had good information for the 'computerizing' end of this thing.
- ✍ My mother for testing and forcing me to test my information in a number of unusual ways.
- ✍ My sister for testing the system on her half scale dolls.
- ✍ The ladies & gentlemen on Small Stuff Digest that originally encouraged me to flesh out my ideas and make them realities instead of just 'dreams' or 'someday' projects.

Glossary

- ✍ Abdomen- area between the waist and hips around the belly button area
- ✍ Abdomen arc- 1/4 of the total circumference of the fattest part
- ✍ Apex- the doll's nipple if she has one or the tip of her breast
- ✍ Arc- 1/4 of complete circumference measurement
- ✍ Banana dart- a dart that looks like a straight up and down banana
- ✍ Basic block- your pattern that you drafted from your measurements it has no design to it
- ✍ Bias grain- the diagonal of the fabric and your grain line is lined up with it for a different drape
- ✍ Blend- making separate lines look like 1 continuous one
- ✍ Bust- chest level on a child or man or the breasts of a lady doll
- ✍ Bust arc- the distance from the flat ribs below the bust to the apex
- ✍ Bust bridge- distance between apexes
- ✍ Cap ease - difference between cap and armhole measurement
- ✍ Cap- height distance from biceps to cap at center
- ✍ Center back- center of the back usually where there would be a spine
- ✍ Center front -center of the front of a doll where there would normally be a breast bone
- ✍ Circumference- distance around somewhere
- ✍ Cloth body- the body is made of cloth and is very soft and huggable.
- ✍ Composition body- the body I made of a plastic substance and does not squish when you hug your doll
- ✍ Cross grain- grain running from selvage to selvage
- ✍ Crotch- area where a drink and wet doll wets and where panties would normally go
- ✍ Dart intake- the extra added to a pattern so that when you sew the dart it doesn't end up too small
- ✍ Dart leg- one of the lines that makes up a dart
- ✍ Dart point- the tip of the dart
- ✍ Darts- used to fit a garment close to the body primarily for lady dolls but can be used on children or men but never on a baby.
- ✍ Drape- holding and pinning a piece of fabric up to a doll and pinching the material until it fits then marking where darts are and making a basic pattern from the fabric markings in a connect-the-dots style.
- ✍ Ease- the extra bit of room that allows you to dress the doll without breaking her
- ✍ Elbow level - elbow of doll
- ✍ Finger span- the distance around all the fingers at the largest point
- ✍ French curve- plastic tool used to draw curves various sizes are available including ones specifically for dolls
- ✍ Grade- to enlarge or shrink an current pattern
- ✍ Grading- the act of enlarging or shrinking a pattern
- ✍ Grain line- center of garment running normally from top to bottom of piece
- ✍ Hip arc- 1/4 of the total hip measurement
- ✍ Horizontal balance lines or HBL- horizontal lines used as a basis of where the bust waist and hip lie so that measuring is more accurate and easier
- ✍ Notches- used at the armhole and top of sleeve to ensure that the sleeve doesn't end up crooked when sewn
- ✍ Porcelain body- made of porcelain doesn't squish and is very hard similar to a composition body only very fragile
- ✍ Princess line- the style of a pattern where the bodice or skirt has been split into 2 pieces for each quarter of the body
- ✍ Raglan- a style where the sleeve doesn't come from the shoulder tip but from the neck shoulder junction as in a sweatshirt
- ✍ Right angle or RT angle- a 90-degree angle commonly found at necklines centers side seams and armhole bottoms

- ✎ Rulers- measuring tool
- ✎ Seam- sewn together pieces of fabric to form 1 piece
- ✎ Seam allowance or S/A- allowance of extra fabric so that your sewing machine has a little extra to grab on to when it tries to feed your fabric through.
- ✎ Sleeve cap -the curved top section of the sleeve from the front to the back
- ✎ Sleeve ease- the added room needed to allow the arm to move if necessary
- ✎ Straight grain- the vertical grain of the fabric
- ✎ Style lines- various lines made on patterns to create a new look or design
- ✎ Torso- the body part of a doll with out the head, arms, or legs.
- ✎ Truing the pattern- checking to be sure that all areas match up side seams are the same length, shoulder seams are the same etc.
- ✎ Waist arc- $\frac{1}{4}$ of the total waist circumference measurement
- ✎ Wrist level- the bottom hemline area of a sleeve, level with the wrist of the arm