## Wren $\star$ Feathers

## Easy Pattern Drafting: Circle skirts

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Quarter inch seams allowed on all pieces unless otherwise specified.
I assume you have basic sewing knowledge and the explanation should suffice, but if you need help please email me!


Disney Animator Elena doll available here: https://www.shopdisney.com/disney-animators-collection-elena-of-avalor-doll-16-1461142

My Elena came with a cute dress whose cut reminded me of some traditional Mexican dance dresses. They have very full skirts with ruffles along the bottom and watching a group of dancers twirl so the colorful, ribbon-covered skirts billow out is a beautiful sight! Children's dresses are often less complicated than adults', with a simpler top that looks similar to this one. The construction of the "real thing" would probably use elastic at the top for more ease of movement, (for example, Simplicity 3863) but I avoid it on doll clothes whenever possible because a) it will eventually stretch out and all your hard work will be wasted and b) dolls generally don't need much ease for movement added to their clothes unless maybe they're the Raggedy Ann dolls from the Johnny Gruelle books that "come to life" and run around having adventures as soon as people are gone. :)

Here is tutorial on drafting a circle skirt for any size doll, and another animator pattern similar in cut to the one Elena comes in. You can use as a top or a dress bodice. Enjoy! I'm hoping to be back with a new set of historical patterns in time for Esty's Labor Day sale - keep your fingers crossed!

Use the instructions to draft your own circle skirt for this bodice or the doll of your choice. You can experiment with copying this bodice at $120 \%$ for AG dolls or use as-is for 16 " dolls with a similar size torso.

|  | bust | waist | inseam | btwn <br> should |
| :--- | :--- | :--- | :--- | :--- |
| 16 " Animators - new | 8 | 9 | 3 | 2.5 |

Measurements for the older Animators are slightly smaller, inseam and arms are longer.

The easiest skirt to draft is a gathered rectangle, but circle skirts are a close second. All you need to know are a few ratios and elementary math formulas. I'll walk you through it step by step, let's go!

As a reminder:
$r$ (radius) is the distance from the center point to the outer edge $d$ (diameter) is the distance all the way across; its formula is $2 r$ (multiply the radius by 2 )
c (circumference) is the distance all the way around; its formula is $2 \pi r$ AKA $\pi d$ (multiply the diameter by 3.14 )

This site will do the circle calculations for you: https://www.omnicalculator.com/math/circumference

1. Measure the bottom edge of the bodice or waistband plus hem allowance $\qquad$ and the skirt length plus desired hem $\qquad$ .
2. Decide how full you want the skirt. A circle skirt opening can be anywhere from exactly the waistband measurement to about 2-2.5 times as full, although that would be really wide at the bottom. If you're not very familiar with gathering ratios, experiment with a small doll and scrap fabric so you can see what the differences are.
3. In this example, I'll use the bodice pattern given at the end of this tutorial. When finished, the bottom edge measures $9.5^{\prime \prime}$. Because I want to add a ruffle, and therefore don't want the bottom extremely full, I'm going to use 9.5 as my inner circle's circumference measurement. If you want yours fuller, you can multiply that by 1.5 or 2. I added $.25^{\prime \prime}$ on either side for seam allowances, bringing my total to $10^{\prime \prime}$.
4. Now I know I want a $10^{\prime \prime}$ circle for the center, that is, my center circle's circumference needs to be 10 ". That's hard to draft, so I need to figure out the diameter (10/3.14=3.18")
5. If it's a number you can easily do with a ruler (or you're lucky enough to live in the metric world) you're set. If it's an odd fraction, you can actually use Word or a drawing program to make you a circle exactly the size you need. In word, insert a circle as your shape into a blank document and type in the exact measurement you need. That's your center template.

6. 
7. The easiest thing to do right now is take that printed out circle template, fold it in quarters and measure your desired length from the edge to get $1 / 4$ of the pattern on a large piece of paper like this:

8. If you're mathematically inclined, you probably already know you can add the radius to the skirt length and draw a circle with that new radius instead. In this case, the radius was $1.59^{\prime \prime}$, added to that was $6^{\prime \prime}$ for my desired skirt length, to get a new circle with a diameter of 15.18 ".
9. Circumference for the outer circle is only important to know if you're going to put trim on it and need a measurement. In this case, it's about 48". You can use $48^{\prime \prime}$ of gathered lace or make your own ruffle by gathering fabric. Because it's so wide, I don't want too full of a ruffle, so I'm going to multiply 48 by 1.5 to get a ruffle that's 72" wide.


This is a $3.18^{\prime \prime}$ circle template


11. These pix show the construction of the bodice, which is similar in appearance to the one Elena comes in. For the ruffle, gather it and sew it to one side of the bias, then topstitch the whole thing as you apply it to the top edge. Note the width you need to leave for each armhole marked as a box on the pattern. Adjust closures (flush or overlap) based on where you want the ruffle to fall.

