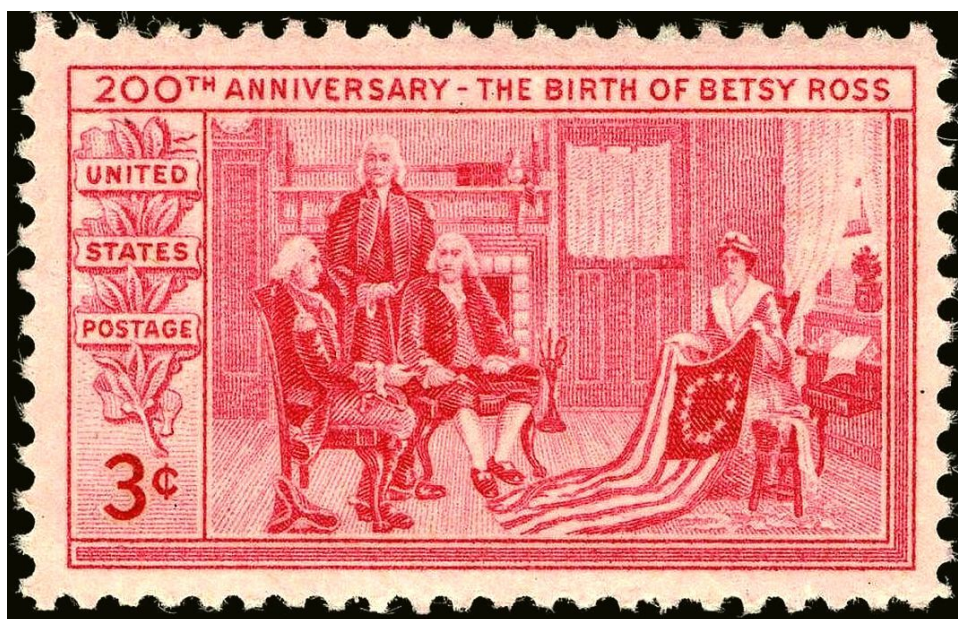


## Betsy Ross's 5-pointed star - How did she do that?



*1952 Betsy Ross stamp depicting her meeting with the Flag Committee composed of George Washington, Robert Morris, and George Ross*

Elizabeth Griscom Ross (January 1, 1752 – January 30, 1836)

There is some debate as to whether Betsy Ross really sewed the first U.S. American Flag but it is generally acknowledged that she was an integral part in redefining its final design.

Betsy Ross's daughter, Rachel Fletcher, testified in 1870,

"[The committee] showed her [Betsy Ross] a drawing roughly executed, of the flag as it was proposed to be made by the committee, and that she saw in it some defects in its proportions and the arrangement and shape of the stars. That she said it was square and a flag should be one third longer than its width, that the stars were scattered promiscuously over the field, and she said they should be either in lines or in some adopted form as a circle, or a star, and that the stars were six-pointed in the drawing, and she said they should be five-pointed."

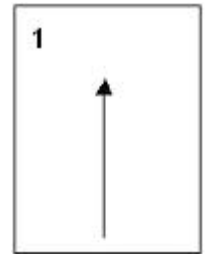
Source: <http://www.ushistory.org/betsy/>

Evidently the committee thought that it would be too hard to create 5-pointed stars so they designed 6-pointed stars. Betsy educated these famous men by showing them a simple folding with only one scissors cut that produced an eloquent 5-pointed star.

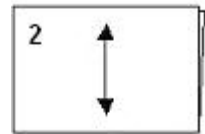
1. Use the instructions on the next page to create your own "perfect" pentagram.
2. Use the picture of the fold lines on the third page to try to work out (and come to class ready to explain your reasoning of) why this works?

We found several "make a 5-pointed star with only one cut" recipes on line. This description is from <https://www.origami-resource-center.com/five-pointed-star.html>. We've added an amendment to step # 6 in order to have your pentagram become a "perfect" star.

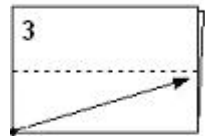
1. Take a 8.5" x 11" piece of paper and fold it in half



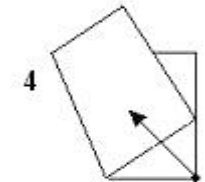
2. Fold in half again to mark the quarter-way point. Unfold.



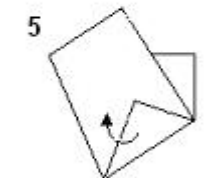
3. Bring the bottom left corner to the quarter-way mark at the right edge of the paper.



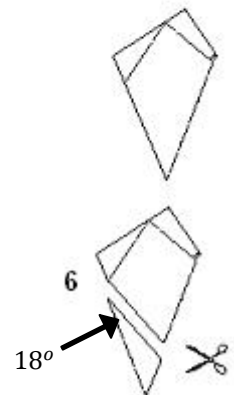
4. Fold the bottom right corner over-top the left edge.



5. Fold the bottom right over-top the left side one more time. You will get a pizza shape.



6. Cut a wedge out of the bottom of the pizza shape: cut from bottom right up towards top left. To make an even more perfect pentagram, try to cut the wedge at a steep angle that meets the left-hand edge so that your slice has an 18-degree top left angle.



7. Unfold the wedge and see a perfect five-pointed star.



