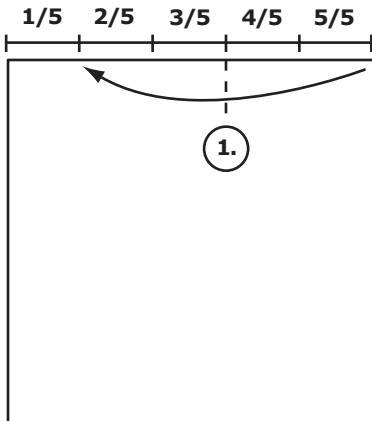


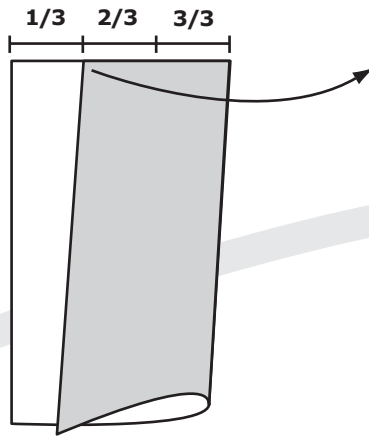
Dividing into Fifths

This method works on any given rectangle, including squares.

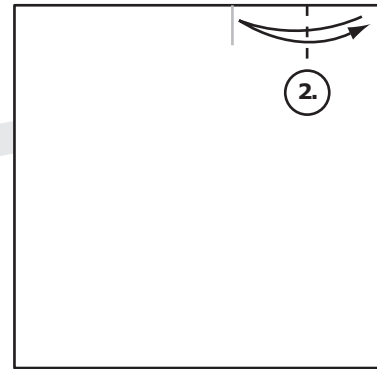
Diagrams by Anna Kastlunger (2013)



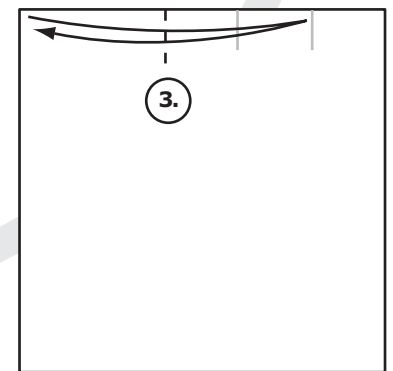
1. Fold the right corner to a point approximately one fifth from the left edge of the paper. It doesn't need to be a perfect fifth. In fact it would do if you folded the paper in half. Only make a small pinch on the top of the paper.



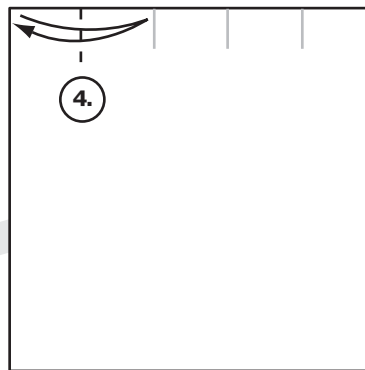
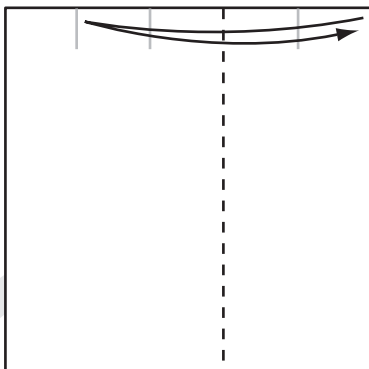
2. You can guesstimate the correct point by assuming the right part of the paper equals double the size of the left part of the paper, but like I said, it doesn't really matter how accurate you guess. Unfold.



3. Fold and unfold the right side to the crease mark you just created, but just make a pinch.

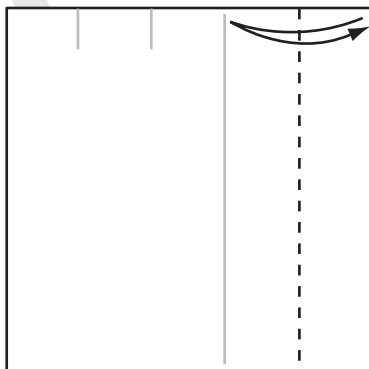


4. Fold and unfold the left side to the crease mark you just created, but just make a pinch.

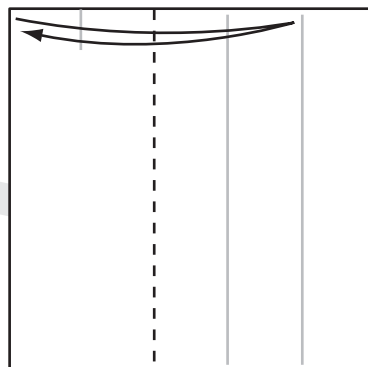


5. Fold and unfold the left side to the crease mark you just created, but just make a pinch.

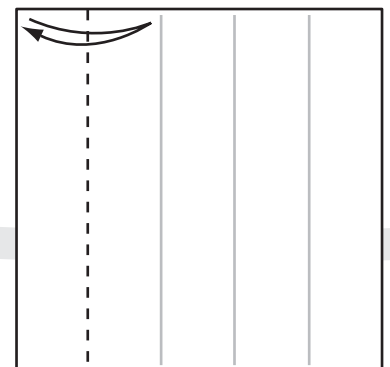
6. Fold and unfold the right side to the crease mark you just created. You can now make a real crease through the whole paper.



7. Fold and unfold the right side to the crease you just created. Crease through the whole paper.



8. Fold and unfold the left side to the crease you just created. Crease through the whole paper.



9. Fold and unfold the left side to the crease you just created. Crease through the whole paper.

Now lets recapitulate.

You start by guesstimating one fifth on the left side, dividing your paper approximately into $3/5$ on the left and $2/5$ on the right side.

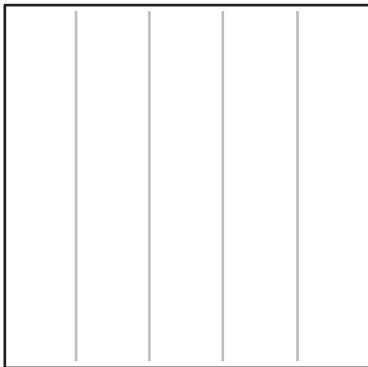
At this point accuracy is not necessary. It would be possible to just divide the paper in half assuming the left half is $3/5$ and the right $2/5$. You can try if you don't believe me.

Whenever you have an even number before the dash, it is possible to divide it in half.

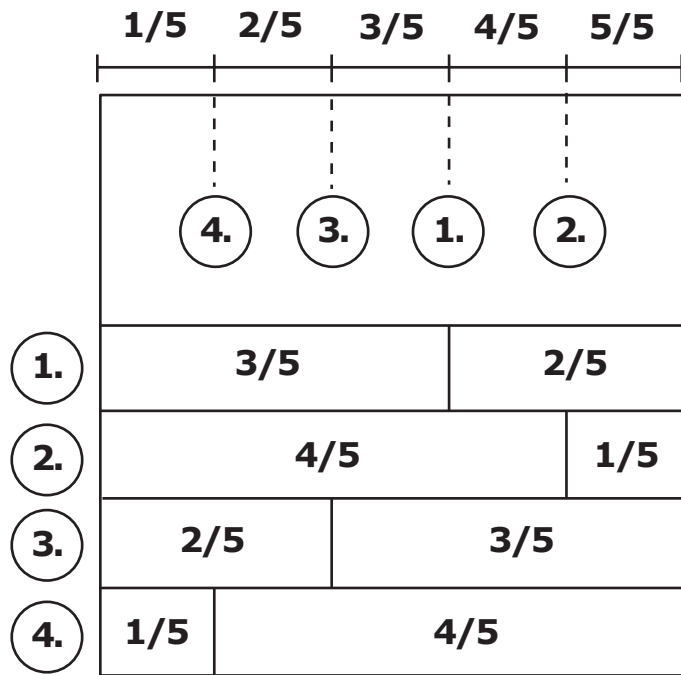
So now you can divide the $2/5$ on the right in half.

This second crease gives you $4/5$ on the left side that you can divide in half again. Giving you $2/5$ on the very left that you can now divide in half again.

Through dividing so many times the error is minimised so much that even if your first guess was dividing the paper in half, the error now is so small that if you repeat the procedure by folding the right side to the last crease we made, you get almost perfect fifths.



10. Your Fifths are all done.



So you ask is this possible for other divisions as well?

Yes of course it is!

Here for example is the sequence you would have to use to get 11th:

