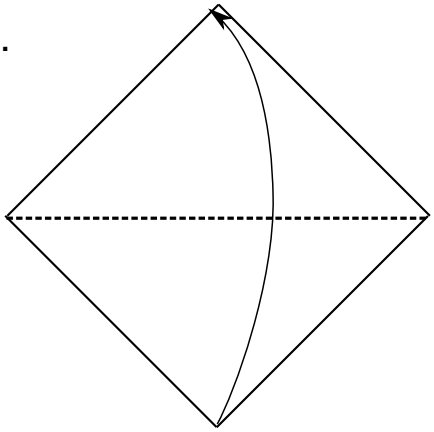
Folding a square into sevenths using the binary fraction method

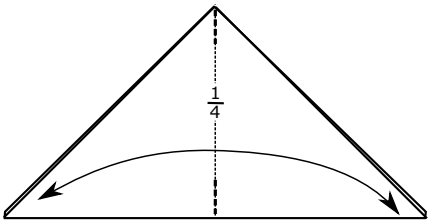
$\frac{1}{7} \approx \frac{1}{8} + \frac{1}{64}$

1.



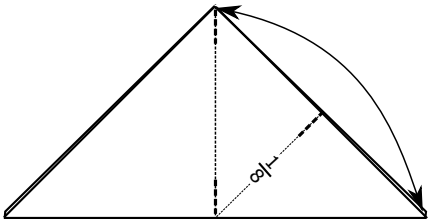
Fold the square along one of the diagonals.

2.



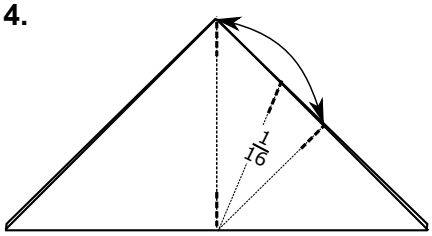
Fold the right side of the paper to the left, making a firm vertical pinch at the centre and at the top of the paper. You may want to mark these pinches with a pencil to make things a little clearer.

3.



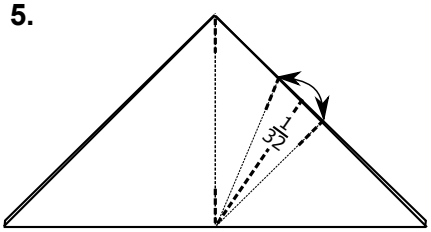
Fold the right side of the paper over the pinch at the top of the paper, making another pinch to mark the mid-point.

4.



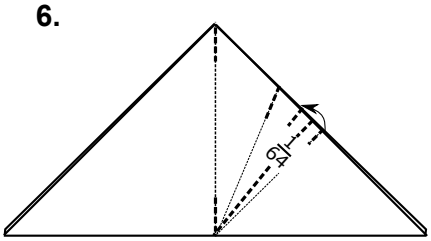
Fold the pinch created in step 3 to the centre-pinch at the top of the paper, making another pinch to mark the mid-point.

5.



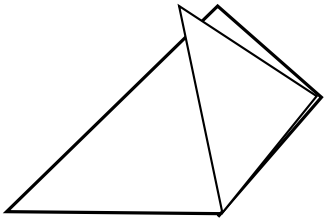
Fold the pinch created in step 3 to the pinch in step 4 and create another pinch from the centre to the edge of the circle.

6.



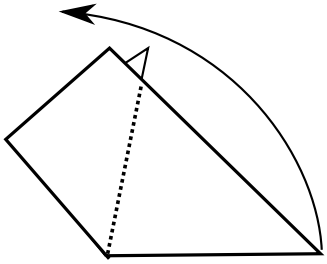
Fold the pinch created in step 3 to the pinch in step 5 and create a firm crease from the centre to the edge of the paper.

7.



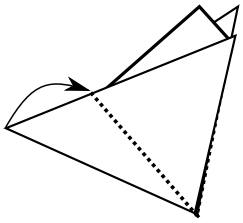
The result should look like this.

8.



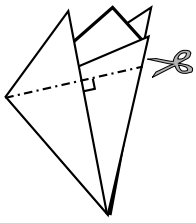
Turn the paper over and fold the right-hand edge of the paper so that its edge lines up with the fold you made in step 6.

9.



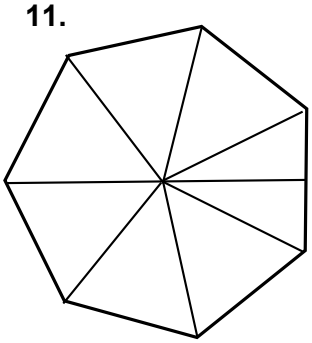
Fold the remaining left-hand flap along the crease underneath.

10.

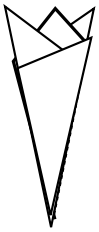


Fold the paper back along a line that's at right angles to the outer flap and cut along the newly-created edge.

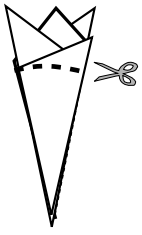
11.



Open up the paper.It should divided neatly into sevenths.



If you're creating Philip Chapman-Bell's Box of seven joys, you can now fold each seventh in half and fold the fourteenths into a wedge.



Cut the paper away in a smooth arc and adjust until you've got a decent-looking circle.

See: http://origami.oschene.com/cp/Box of Seven Joys SCP.pdf