

## Further Challenges

If you are looking to further your learning, try one of these NRICH problem solving challenges.

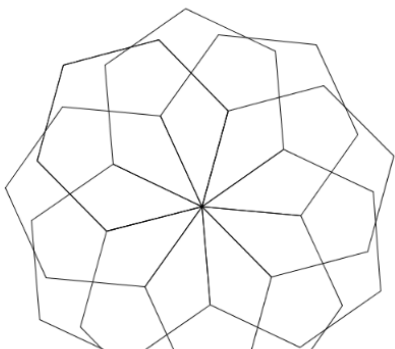
**These will not be marked via google classroom**, but you are welcome to explore and complete these at home. 😊

Age 11 to 14 ★

Below are some examples of pictures made by taking a regular polygon and rotating it by a fixed angle about one of its vertices.

Can you work out the polygon used and the angle of rotation in each picture?

How many other angles in each picture can you calculate?

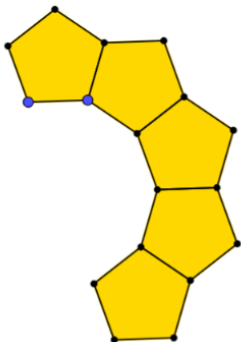


### NRICH Polygon Pictures

<https://nrich.maths.org/11498>

Age 11 to 14 ★

Here is a pattern made of regular pentagons:



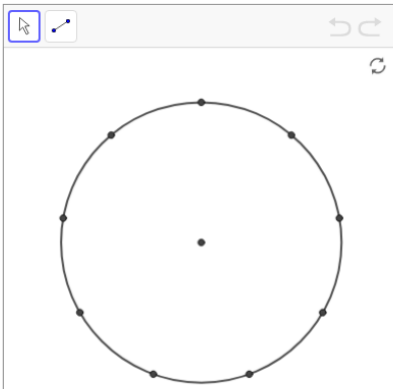
### NRICH Polygon Rings

<https://nrich.maths.org/polygonrings>

Age 11 to 14 ★★

Can you make a right-angled triangle on this peg-board by joining up three points round the edge?

Can you work systematically to prove this?



### NRICH Right angles

<https://nrich.maths.org/rightangles>