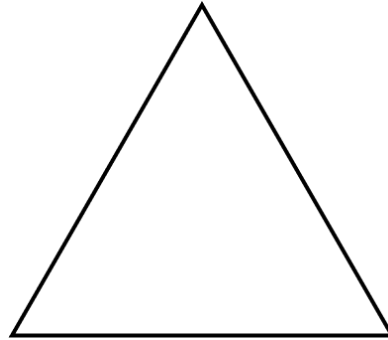




Tiling Symmetries

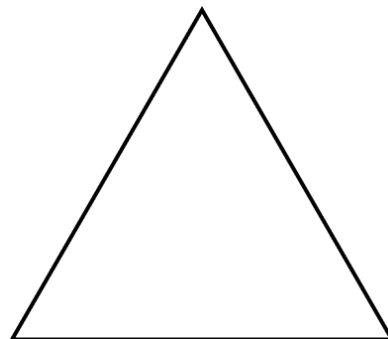


Can you **completely cover** this triangle with pattern blocks without going over the edge? (This is called a **tiling** of the triangle.) If so, draw your tiling inside the triangle.



How many different positions can you find for your tiling so it looks **exactly the same**? A way of moving the tiling so it looks exactly the same is called a **symmetry** of the tiling.

Can you find a different way to tile the triangle? If so, draw it below. Does it have a different number of symmetries than your first tiling?

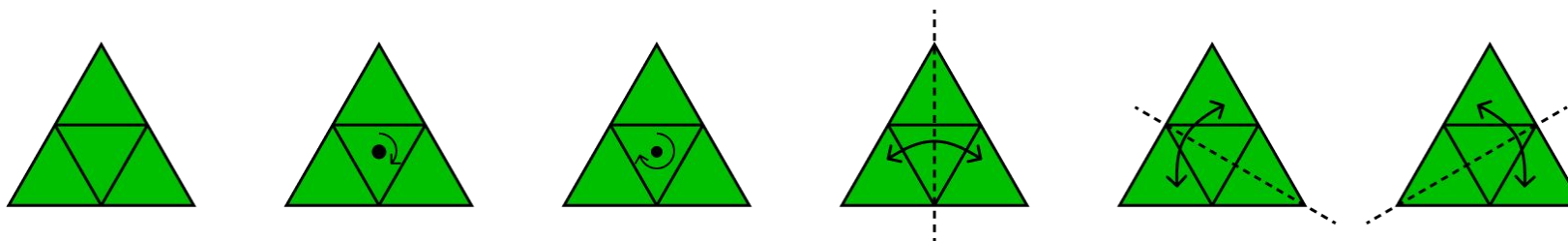


Tiling Symmetries

Different tilings of the same shape can have different symmetries. Consider these two tilings of the triangle:



The tiling with 4 triangles has 6 symmetries:



However, only 2 of these 6 are symmetries of the tiling with a triangle and a trapezoid:

