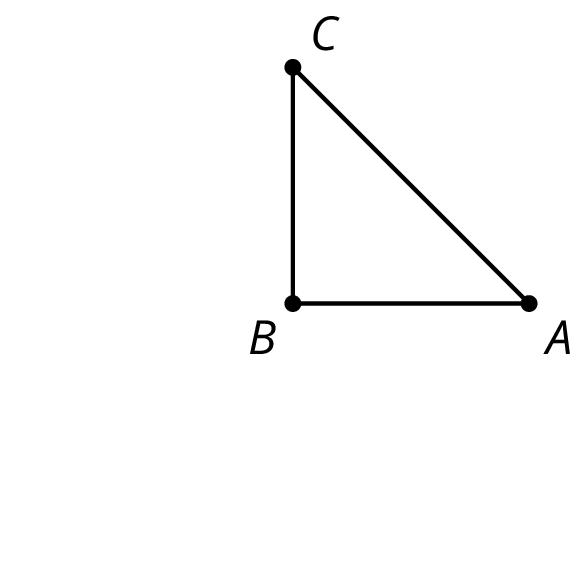
## Unit 1 Lesson 8: Rotation Patterns

### 1 Building a Quadrilateral (Warm up)

#### Student Task Statement

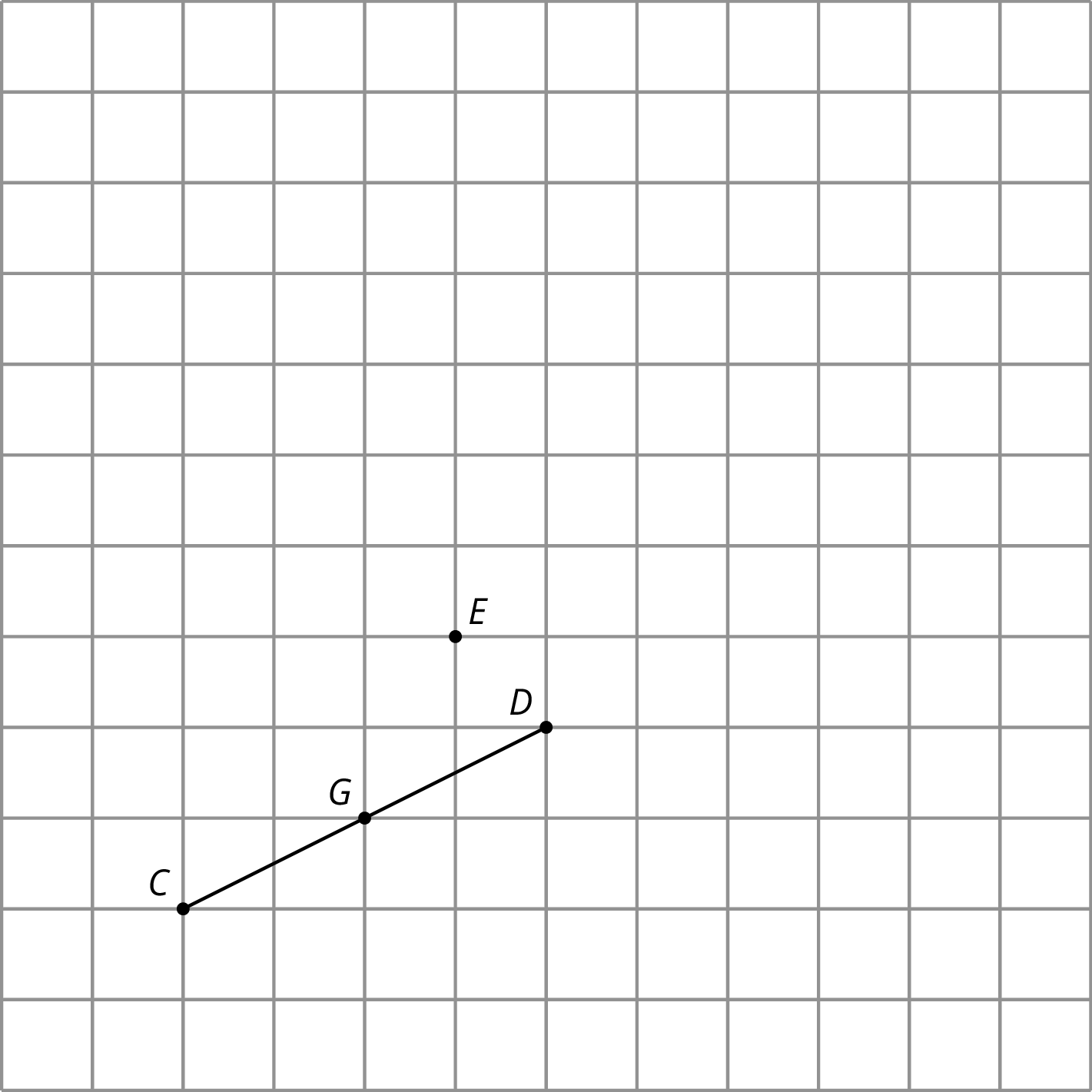
Here is a right isosceles triangle:



1. Rotate triangle 90 degrees clockwise around .
2. Rotate triangle 180 degrees clockwise round .
3. Rotate triangle 270 degrees clockwise around .
4. What would it look like when you rotate the four triangles 90 degrees clockwise around ? 180 degrees? 270 degrees clockwise?

### 2 Rotating a Segment

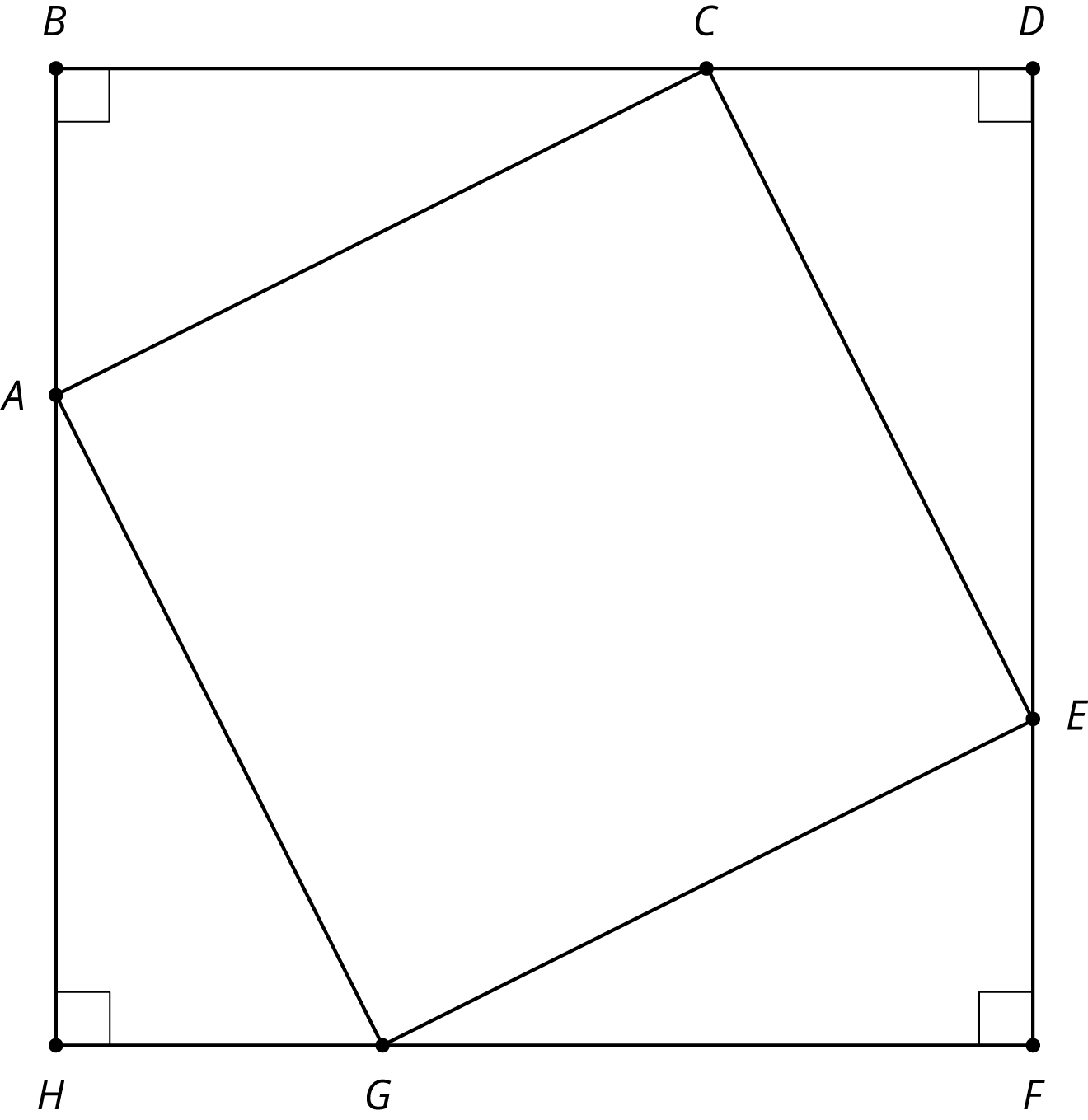
#### Student Task Statement



1. Rotate segment 180 degrees around point . Draw its image and label the image of as
2. Rotate segment 180 degrees around point . Draw its image and label the image of as and the image of as .
3. Rotate segment 180 degrees around its midpoint, What is the image of ?
4. What happens when you rotate a segment 180 degrees around a point?

### 3 A Pattern of Four Triangles

#### Student Task Statement



You can use rigid transformations of a figure to make patterns. Here is a diagram built with three different transformations of triangle .

1. Describe a rigid transformation that takes triangle to triangle .
2. Describe a rigid transformation that takes triangle to triangle .
3. Describe a rigid transformation that takes triangle to triangle .
4. Do segments , , , and  all have the same length? Explain your reasoning.



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