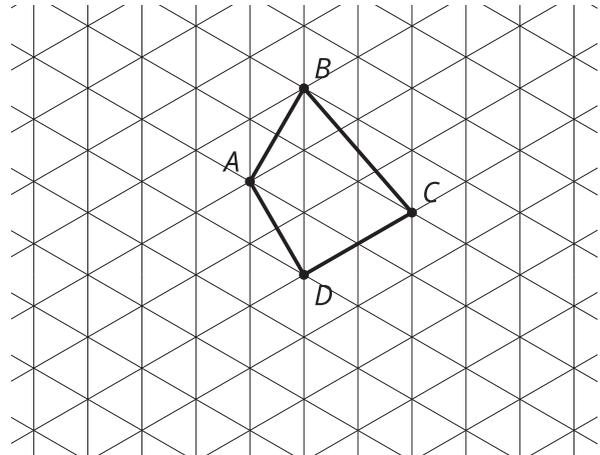


Lesson 14 Practice Problems

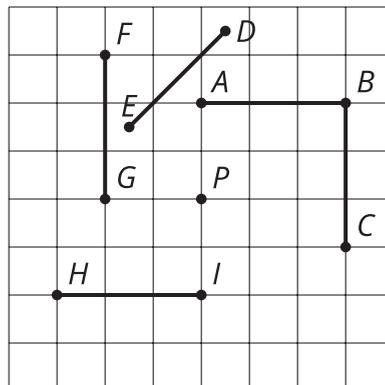
1. Draw the image of quadrilateral $ABCD$ when rotated 120° counterclockwise around the point D .



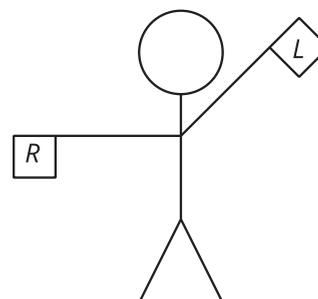
2. There is an equilateral triangle, ABC , inscribed in a circle with center D . What is the smallest angle you can rotate triangle ABC around D so that the image of A is B ?

- A. 60°
- B. 90°
- C. 120°
- D. 180°

3. Which segment is the image of AB when rotated 90° counterclockwise around point P ?

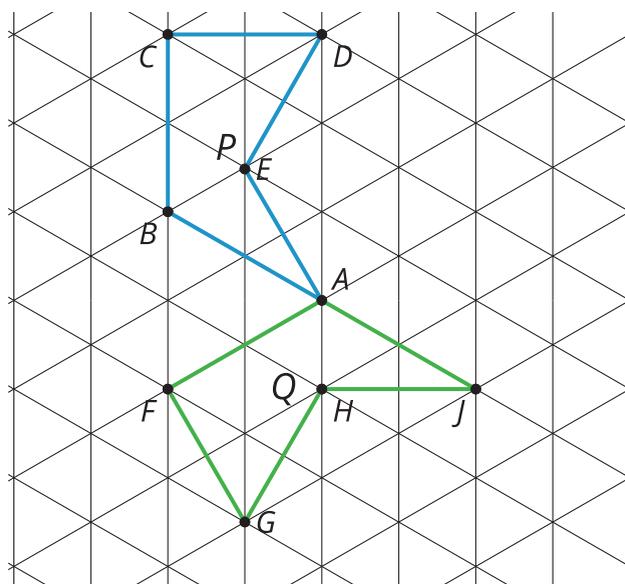


4. The semaphore alphabet is a way to use flags to signal messages. Here's how to signal the letter Q. Describe a transformation that would take the right hand flag to the left hand flag.



(From Unit 1, Lesson 13.)

5. Here are 2 polygons:

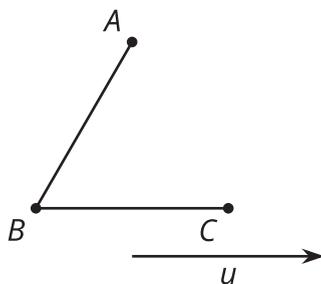


Select **all** sequences of translations, rotations, and reflections below that would take polygon P to polygon Q .

- A. Rotate 180° around point A .
- B. Translate so that A is taken to J . Then reflect over line BA .
- C. Rotate 60° counterclockwise around point A and then reflect over the line FA .
- D. Reflect over the line BA and then rotate 60° counterclockwise around point A .
- E. Reflect over line BA and then translate by directed line segment BA .

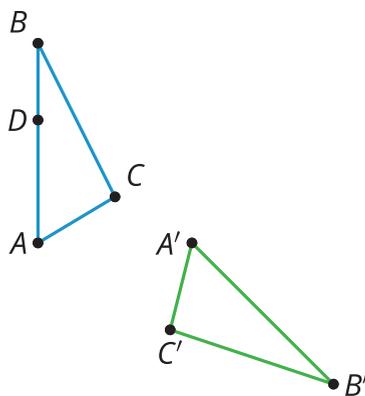
(From Unit 1, Lesson 13.)

6. a. Draw the image of figure ABC when translated by directed line segment u . Label the image of A as A' , the image of B as B' , and the image of C as C' .
- b. Explain why the line containing AB is parallel to the line containing $A'B'$.



(From Unit 1, Lesson 12.)

7. There is a sequence of rigid transformations that takes A to A' , B to B' , and C to C' . The same sequence takes D to D' . Draw and label D' :



(From Unit 1, Lesson 10.)