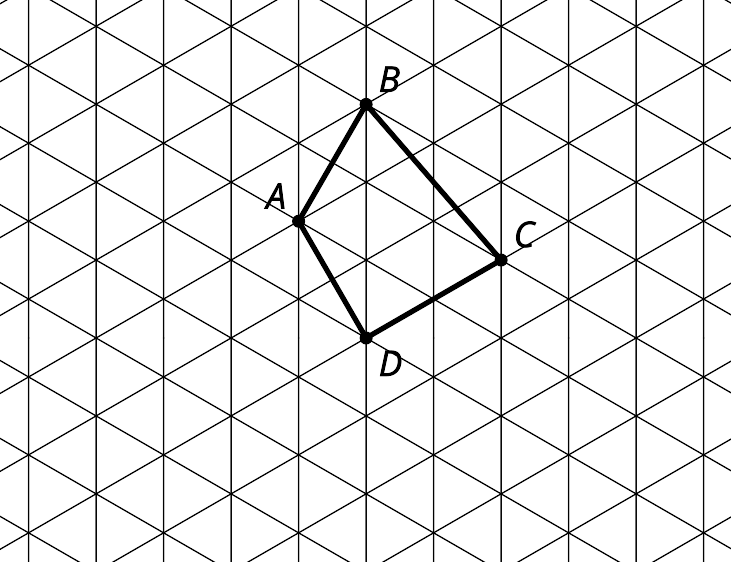
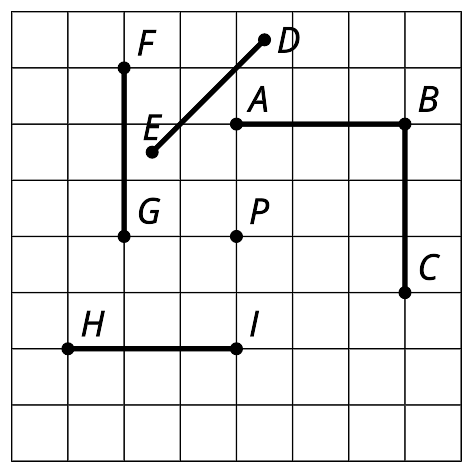
## Unit 1 Lesson 14 Cumulative Practice Problems

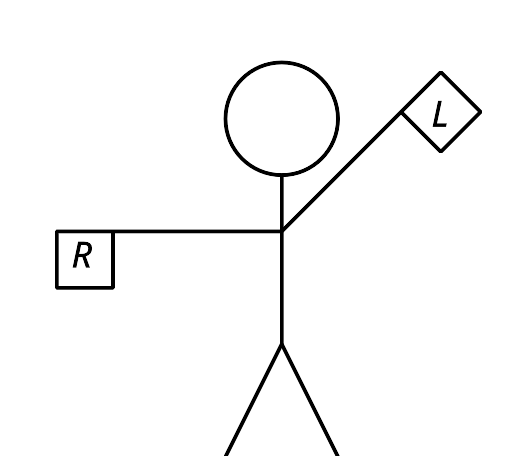
1. Draw the image of quadrilateral when rotated counterclockwise around the point .

* 
* ​​​​​​

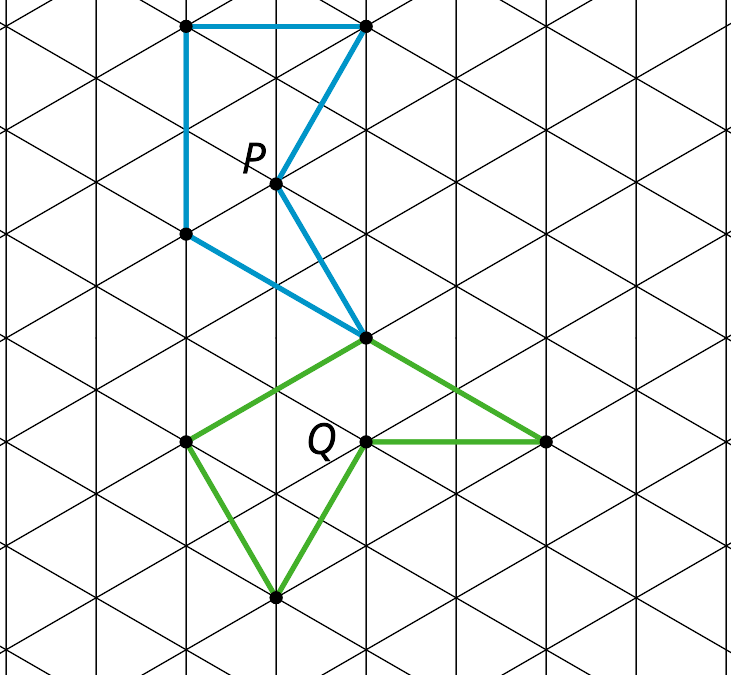
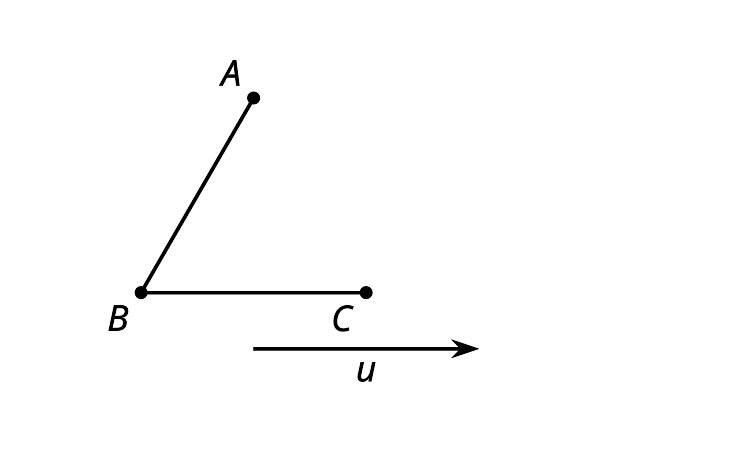
1. There is an equilateral triangle, , inscribed in a circle with center . What is the smallest angle you can rotate triangle around so that the image of is ?
2. Which segment is the image of when rotated  counterclockwise around point ?

* 

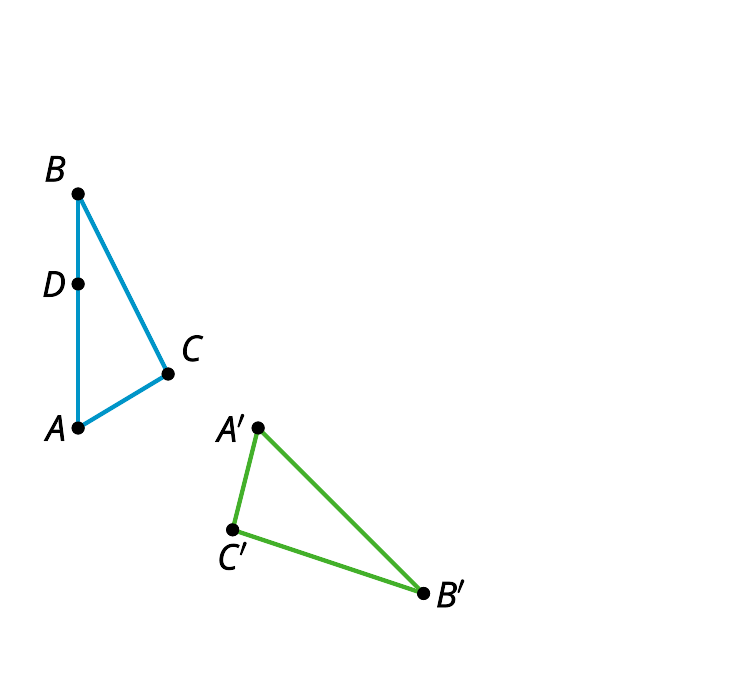
1. The semaphore alphabet is a way to use flags to signal messages. Here's how to signal the letter Q. Describe a transformation that would take the right hand flag to the left hand flag.

* Q
* 
* (From Unit 1, Lesson 13.)

1. Here are 2 polygons:

* 
* Select **all** sequences of translations, rotations, and reflections below that would take polygon to polygon .
  1. Rotate around point .
  2. Translate so that is taken to . Then reflect over line .
  3. Rotate counterclockwise around point and then reflect over the line .
  4. Reflect over the line and then rotate counterclockwise around point .
  5. Reflect over line and then translate by directed line segment .
* (From Unit 1, Lesson 13.)
  1. Draw the image of figure when translated by directed line segment . Label the image of as , the image of as , and the image of as .
  2. Explain why the line containing is parallel to the line containing .
* 
* (From Unit 1, Lesson 12.)

1. There is a sequence of rigid transformations that takes to , to , and to . The same sequence takes to . Draw and label :

* 
* (From Unit 1, Lesson 10.)



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