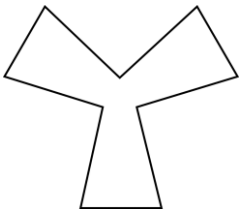
6.1 & 9.1-9.3 Study Guide

Name: _____

1. Name the polygon by the number of sides. Determine if the polygon is regular or irregular and concave or convex.



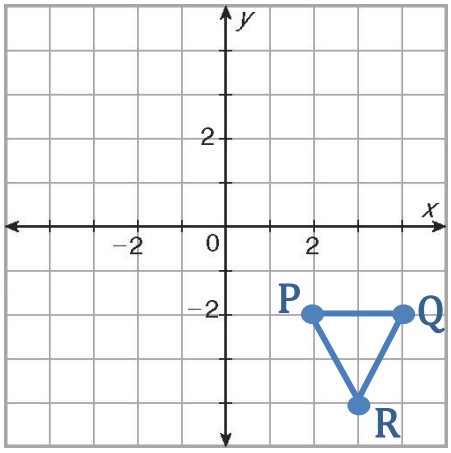
2. Find the sum of the interior angle measures of a convex octagon.

3. Find the measure of each interior angle of a regular heptagon.

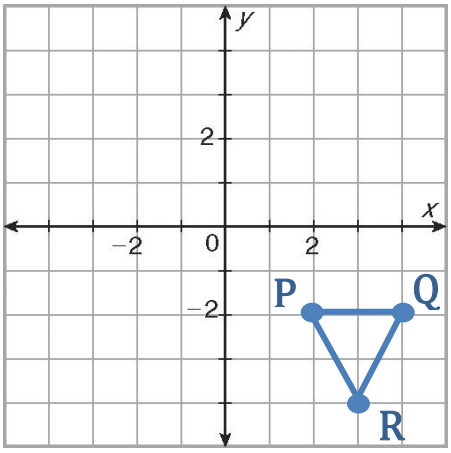
4. Find the measure of each exterior angle of a regular pentagon.

5. What is the name of the polygon in which the sum of the interior angles is 1,980?

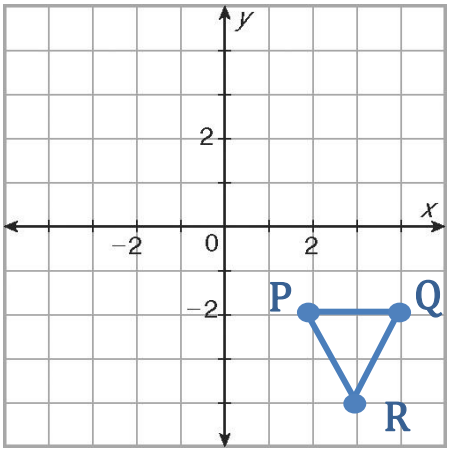
6. Reflect ΔPQR over the line x = 1.
P'(____, ____), Q'(____, ____), R'(____, ____)



7. Reflect ΔPQR over the line y = x.
P'(____, ____), Q'(____, ____), R'(____, ____)



8. Use the given notation to transform ΔPQR then decribe the transformation in words.
R(x,y) = (-x, y)



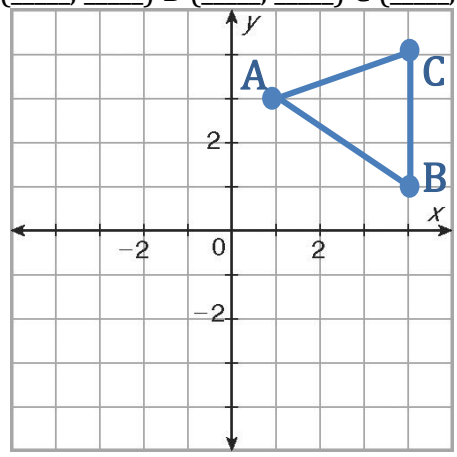
P'(____, ____)

Q'(____, ____)

R'(____, ____)

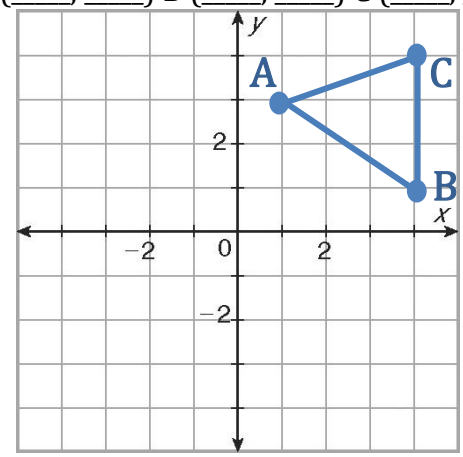
9. Rotate ΔABC about the origin 90°

A'(____, ____) B'(____, ____) C'(____, ____)



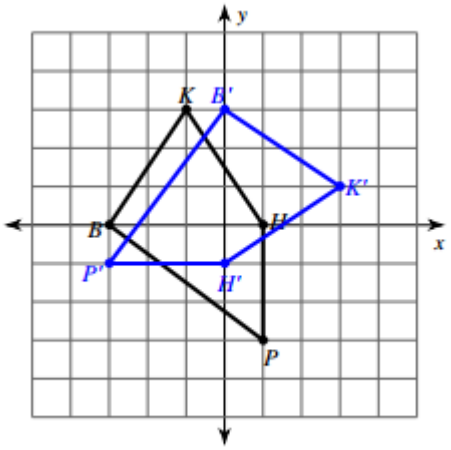
10. Rotate ΔABC about the origin -180°

A'(____, ____) B'(____, ____) C'(____, ____)



For #11-12, describe how the following figures were rotated in words and function notation.

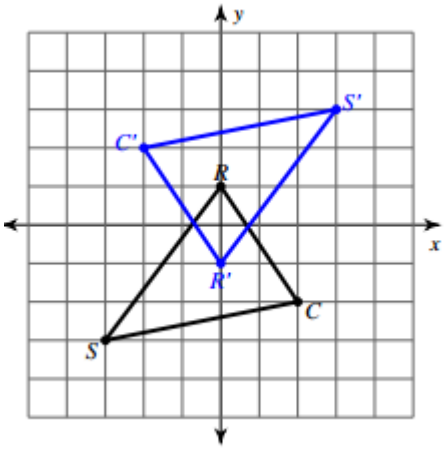
11.



Words:_____

Function:_____

12.



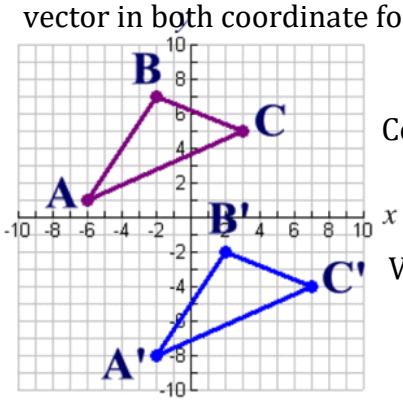
Words:_____

Function:_____

13. What is the image of E(-1,6) mapped by translation T (x, y) → (x – 6, y -10)?

14. What is the pre-image of F'(9,-6) mapped by translation T (x, y) → (x+7, y -1)?

15. Given the following diagram, write the translation vector in both coordinate form and vector form.



Coordinate Form _____

Vector Form_____

16. What is the image of coordinate M(-3, 7) when it is translated along the vector <6, -4>?