

# hint sheet

Name \_\_\_\_\_

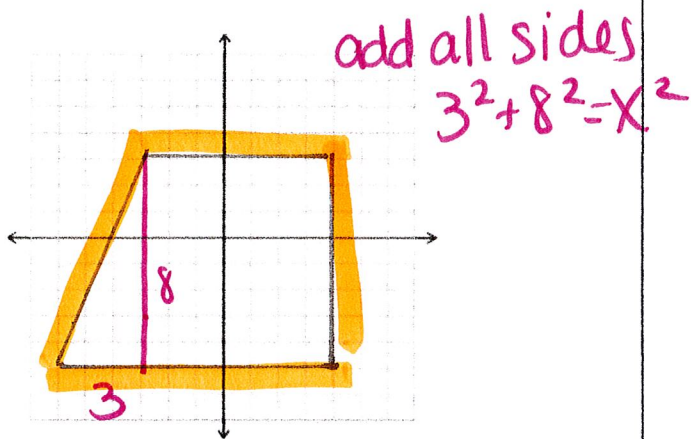
TH #7

1. Write the equation of a line that is PARALLEL to the line  $y = -\frac{2}{3}x + 3$  and passes through  $(-12, 10)$

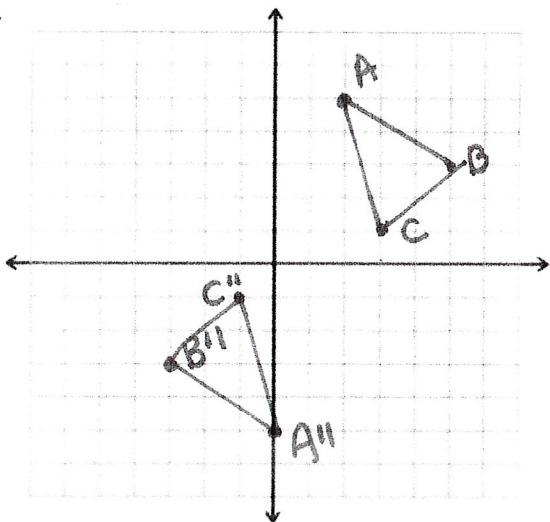
$$y = mx + b$$

$x \ y$   
 $m = -\frac{2}{3}$   
 $\parallel m = -\frac{2}{3}$

2. find the perimeter of the figure \_\_\_\_\_



3.

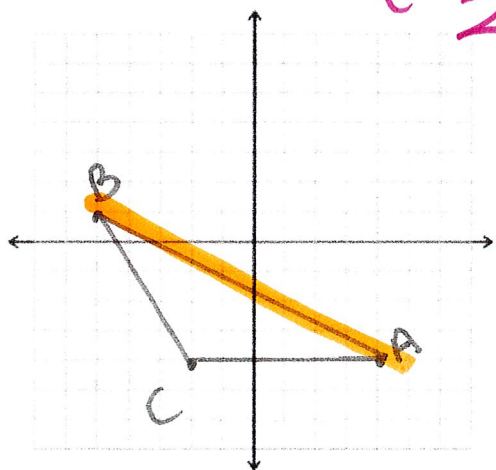


\_\_\_\_\_ Which series of rigid motions proves that  $\triangle ABC \cong \triangle A'B'C'$ ?

- A. reflect over the y-axis, then reflect over the x-axis
- B. reflect over the line  $x = 1$ , then reflect over the x-axis
- C. Reflect over the line  $y = 1$ , then reflect over the x-axis
- D. rotate  $270^\circ$  counterclockwise about the origin, then reflect over the x-axis

4. Find the midpoint of  $\overline{AB}$

$$\left( \frac{x+x}{2}, \frac{y+y}{2} \right)$$

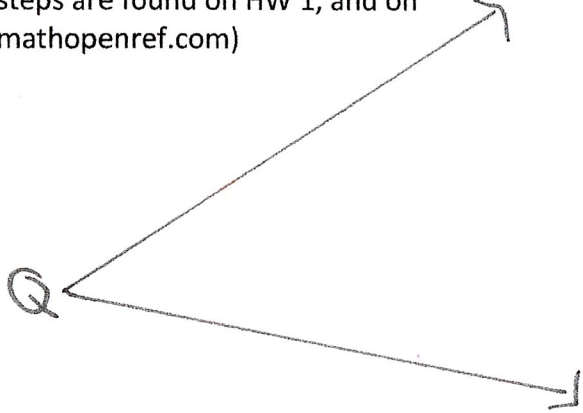


5. Consider the three rigid motions. Write True or false:

- A. \_\_\_\_\_ Angle measures is preserved
- B. \_\_\_\_\_ orientation is preserved
- C. \_\_\_\_\_ Side length is preserved

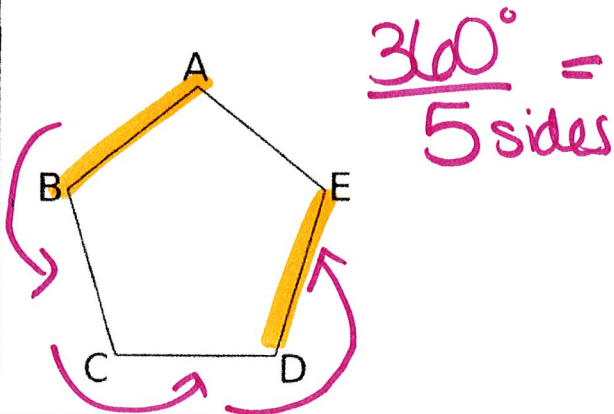
(preserved means stays the same)

6. Construct the angle bisector to  $\angle PQR$  (hint: the steps are found on HW 1, and on mathopenref.com)



7. list the steps to the angle bisector construction:

8. How many degrees would you rotate counterclockwise to map  $\overline{AB}$  onto  $\overline{DE}$ ?



9. Consider a regular octagon.  $\rightarrow 8$   
State the number of lines of symmetry: \_\_\_\_\_

State the angle of rotation: \_\_\_\_\_

10. The following are the steps to constructing a hexagon, but they are scrambled. Write the numbers of the steps:

\_\_\_\_\_ Connect adjacent points with a straightedge.

\_\_\_\_\_ Starting with circle O, mark A anywhere on the circle. Place your compass on O and measure to A: you are finding the length of the **radius  $\overline{OA}$**

\_\_\_\_\_ Do not change your compass: place compass on B and repeat this process around the circle until you end at A.

\_\_\_\_\_ With your compass set to the length of the radius, place your compass on A and make an arc intersecting the circle. Call this intersection B

11. Construct a hexagon inscribed in a circle

