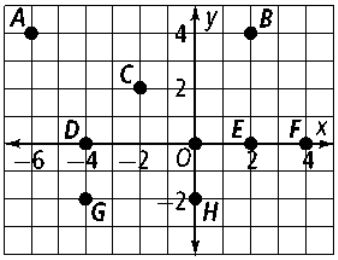
Geometry
2nd Semester Problem Set 11 Name:
Period:

In Exercises 1–5, refer to the figure at the right.



1. What is the image of *C* under $T_{<2,\,-4>}(C)$

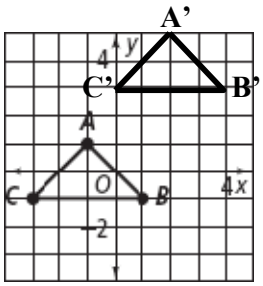
2. What rule describes the translation $F \rightarrow B$?

3. What is the image of *E* under $T_{<-6,\,0>}(E)$

4. What rule describes the translation $D \rightarrow H$?

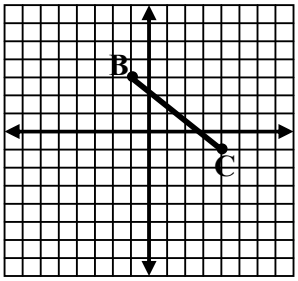
5. What is the image of *C* under $(x, y) \rightarrow (x - 2, y - 4)$?

6.



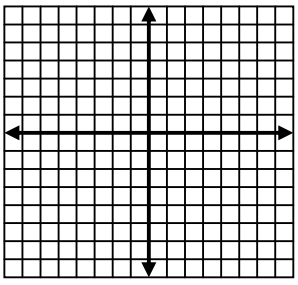
State the translation rule shown by this graph.

7. Find the coordinates of the endpoints of the image $T_{<2,\,3>}(\overline{BC})$



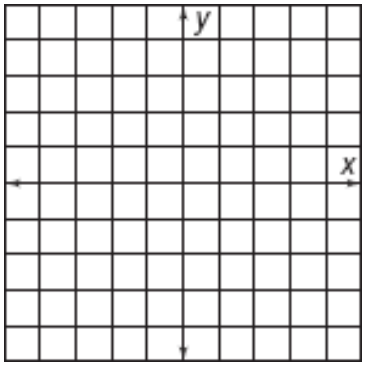
8. Given points *S*(6, 1), *U*(2, 5), and *B*(−1, 2), draw and label Δ*SUB* **and its reflection** image across the line. **Label the vertices of the image.**

$R_{y=-1}(\Delta SUB)$



9. What are the two shortest words in the English language that you can write with capital letters so that each word looks like its own reflection across a line?

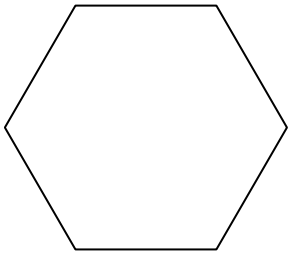
10. **ΔABC has vertices $A(2, 2)$, $B(4, 2)$, $C(2, 5)$**
Graph $r_{(270°, O)}(\Delta ABC)$.



11. Find the measure of a central angle of a regular octagon.

12. Find the sum of the interior angles of a decagon.

13. The length of the side of the regular hexagon is 30 cm.



a.) Find the measure of the central angle.

b.) Find the length of the apothem.

c.) Find the area of one small triangle in **simplified radical form**.

d.) Find the area of the regular hexagon. (nearest whole number or radical form)

Find the area of the regular polygon. Round your answer to the nearest **whole number or leave in radical form.**

14. Perimeter =48 cm