

2. Find the sum, $25^{\circ}28'50'' + 25^{\circ}20'21''$

3. Convert 27.34° into dms.

4. Convert $53^{\circ}36'25''$ into decimal degrees.

5. $m\angle A = 3x$. Given that $\angle A$ is obtuse, what are the restrictions on x ?

6. $m\angle P = 2x - 6$. If $\angle P$ is acute, what are the restrictions on x ?

7. If $\angle J = 5a + 32$, what value of a would allow us to conclude that $\angle J$ is a right angle?

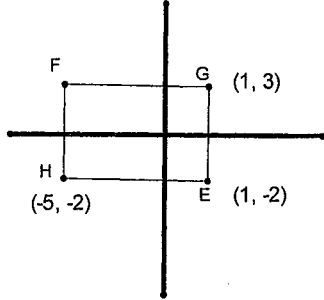
8. What's the measure of the angle formed by the hands of a clock at 5:00?

At 5:30?

9. Point A is at $(4, 3)$ on the xy plane. If A is reflected over the y axis, then translated 5 units down, what would the new coordinates be?

10. Point B is at the coordinates $(-5, 0)$. If B is rotated 90° counter clockwise, then reflected in the line $x = 2$, what are the coordinates of B' ?

11. A rectangle is graphed below (all angles are 90°)
 What are the coordinates of F?

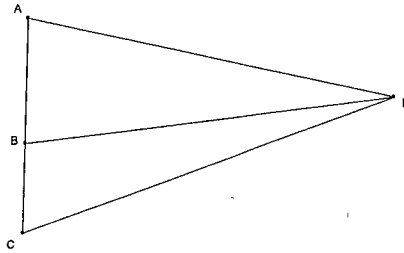


What's the area of the rectangle?

What's the perimeter?

Use the diagram below to answer questions 12 – 15.

12. $\overline{AB} \cap \overline{BD} =$ _____
 13. $\overline{AB} \cup \overline{AD} =$ _____
 14. $\overrightarrow{AC} \cap \overrightarrow{CA} =$ _____
 15. $\overrightarrow{AC} \cup \overrightarrow{CA} =$ _____



14. **"If it's not a duck, then it dances"** Write the converse, inverse, and contrapositive:

Conv:

Inv:

Contr:

15. If an original statement is true, then contrapositive must be _____.

16. Assume the following are true statements, use syllogism to write a valid conclusion.

If I stay up too late, then I'll lose intelligence.

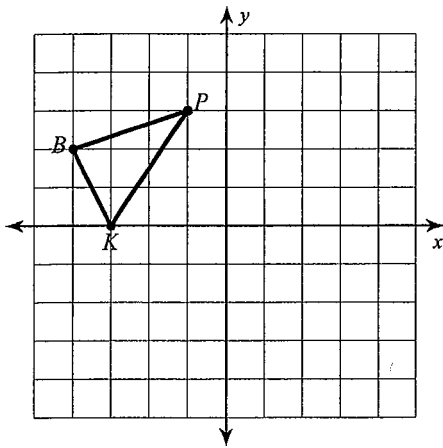
If I lose intelligence, I'll start liking Drake.

If I like Drake, then adults will make fun of me.

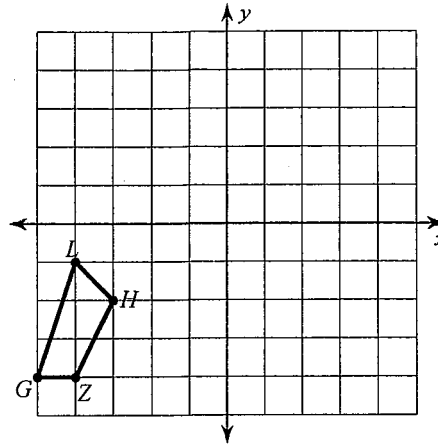
17. Name a counterexample that would show the statement, **"If it's a Fararri, then it's red"** to be false.

Graph the image of the figure using the transformation given.

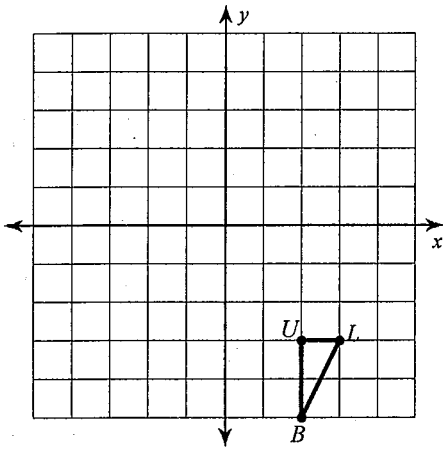
16) rotation 180° about the origin



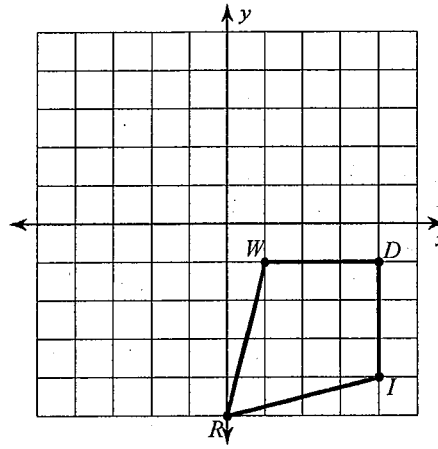
17) rotation 90° counterclockwise about the origin



18) translation: $(x, y) \rightarrow (x - 2, y + 1)$



19) translation: $(x, y) \rightarrow (x + 1, y + 4)$



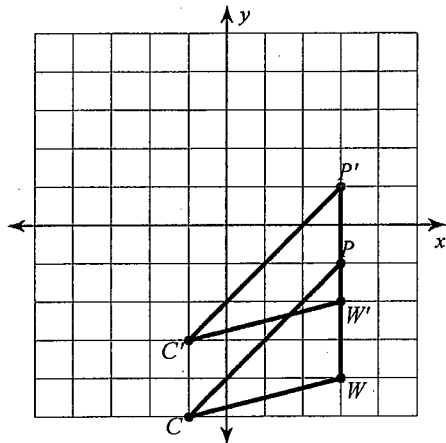
Find the coordinates of the vertices of each figure after the given transformation.

20) translation: $(x, y) \rightarrow (x + 8, y - 3)$
 $H(-5, 1), K(-5, 4), Q(-3, 3)$

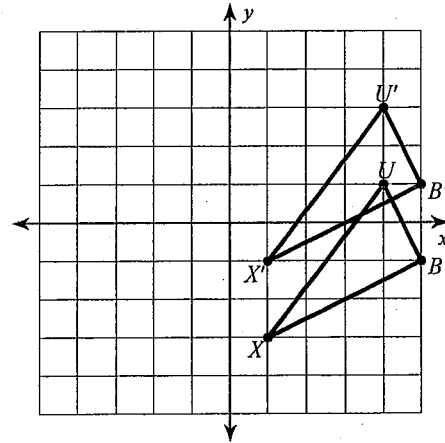
21) translation: $(x, y) \rightarrow (x - 6, y + 2)$
 $A(4, -4), V(4, -2), E(5, -3)$

Write a rule to describe each transformation.

22)

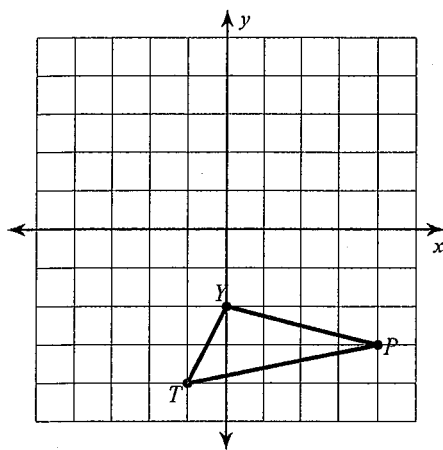


23)

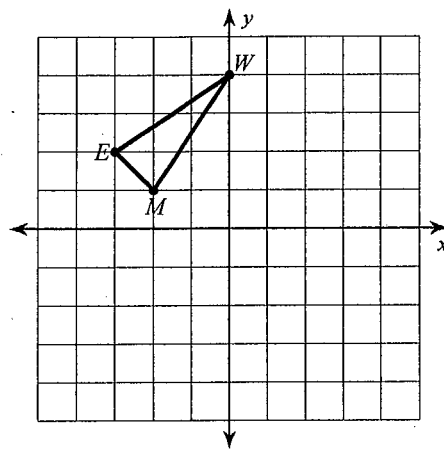


Graph the image of the figure using the transformation given.

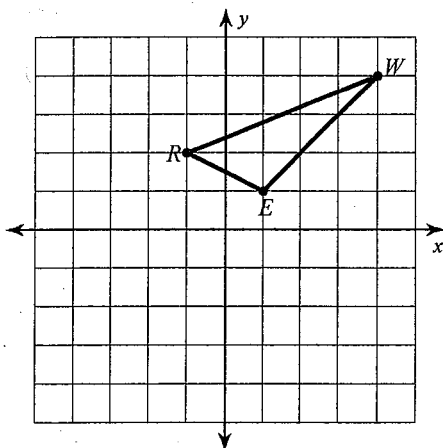
24) reflection across $y = x$



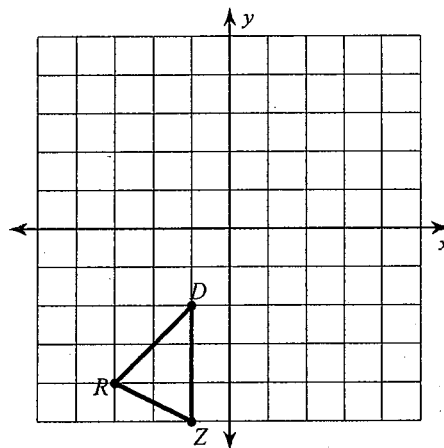
25) reflection across $y = -x$



26) reflection across $y = 3$

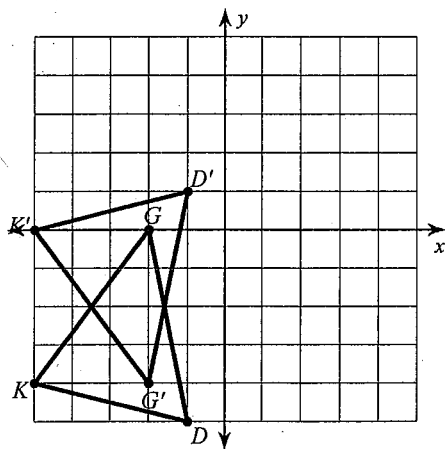


27) reflection across $y = -2$



Write a rule to describe each transformation.

28)



29)

