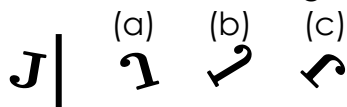


Review Worksheet for the Unit 5 Test

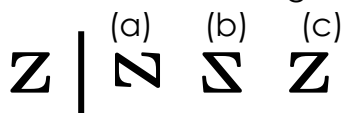
Name _____ Class Period _____

Remember this worksheet is just a guide to help you prepare for the Unit 5 Test. You are responsible for all material covered in Unit 5. Use your Unit 5 Quiz, Notes, and Homework Assignments to also help you prepare for the Unit 5 Test!

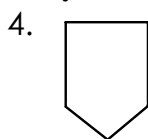
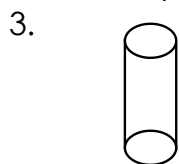
1. Which one of the images can be **rotated** to match the letter J on the left?



2. Which one of the images can be **reflected** to match the letter Z on the left?

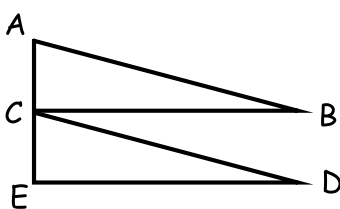


How many lines of symmetry does the given object appear to have?

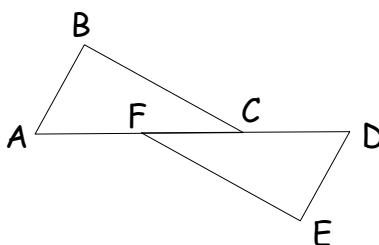


Name the transformation that maps:

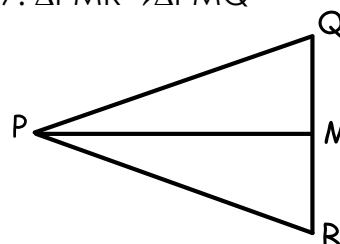
5. $\triangle ABC \rightarrow \triangle CDE$



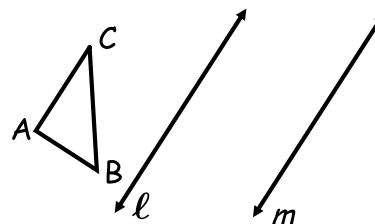
6. $\triangle ABC \rightarrow \triangle DEF$



7. $\triangle PMR \rightarrow \triangle PMQ$

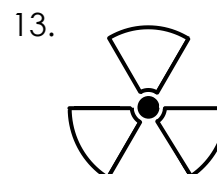
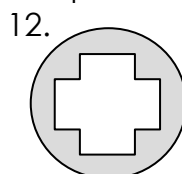


8. In the diagram, $\ell \parallel m$ and $\triangle ABC$ is reflected first in line ℓ and then in line m . This set of reflections is equivalent to doing what kind of singular transformation?



9. If ℓ and m were **intersecting** lines, and $\triangle ABC$ was reflected first in line ℓ and then in line m , what would the resulting transformation be?

Describe any **rotations** (of 180° or less) that will map each figure onto itself.

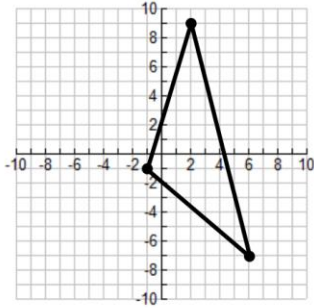


An isometry is a transformation in the plane that preserves length. Identify each **transformation** and each **isometry**. (Preimages are unshaded and images are shaded.)

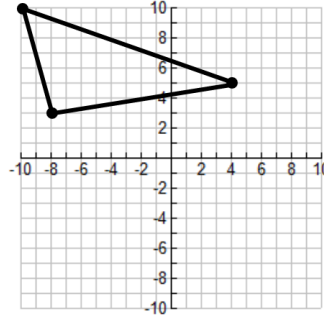


Draw the image of each figure, using the given transformation.

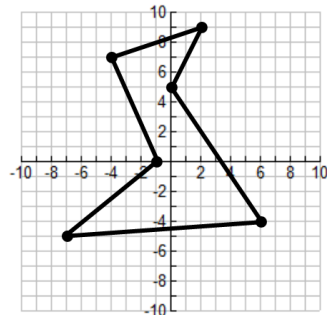
19. Translation $(x, y) \rightarrow (x - 8, y - 3)$



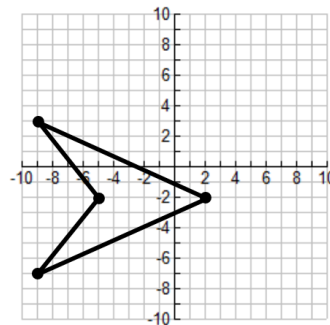
20. Reflection across the **x-axis**.



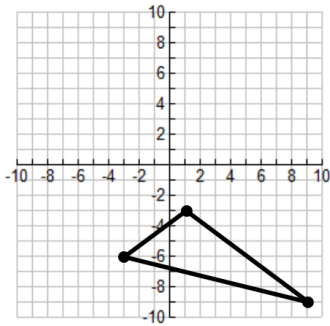
21. Reflection across the line **x = -2**



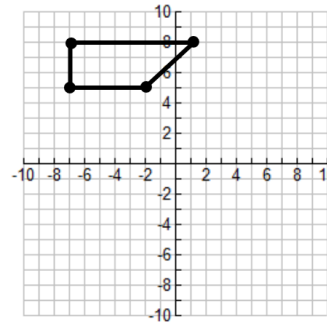
22. Reflection across the **y-axis**.



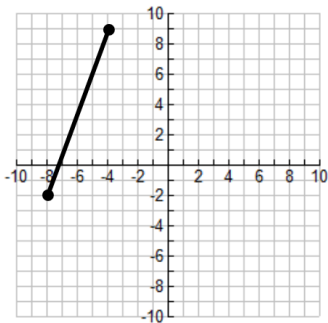
23. Rotation 180° about the origin



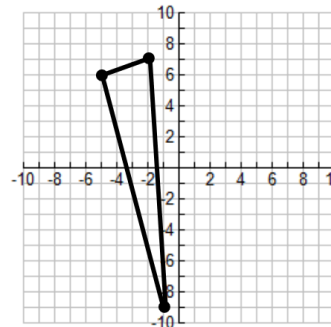
24. Rotation 90° clockwise about the origin.



25. Translation $(x, y) \rightarrow (x + 9, y - 8)$
 Rotation 90° CCW about the origin



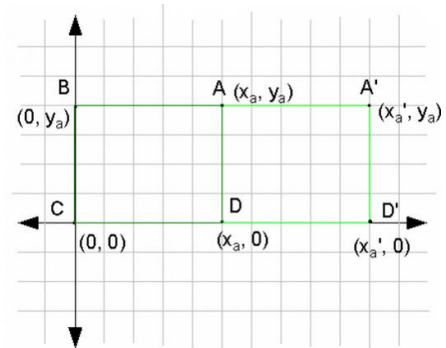
26. Translation $(x, y) \rightarrow (x + 4, y - 2)$
 Rotation 180° about the origin.
 Reflection about the line $y = x$.



Examine the diagram. Note that **B' is at the same point as B**, and **C' is at the same point as C**, although these are not labeled.

27. Is this an isometry? Is it a dilation?

28. What transformation has taken place to map ABCD to A'B'C'D'? Be specific.



29. Write the function/rule that maps ABCD to A'B'C'D'.

Specify if the following equations or graphs are **even**, **odd**, or **neither**.

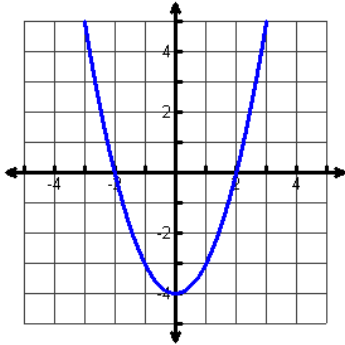
30. $y = 2x^3 - 4$

31. $y = 5x^6 - 4x^2$

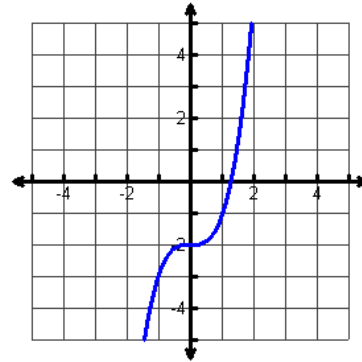
32. $y = 10$

33. $y = \frac{1}{2}x$

34.



35.



36. Given $f(x)$ is odd and point $A(-4, 19)$ is a point on the function. Name another point on the **odd function**.

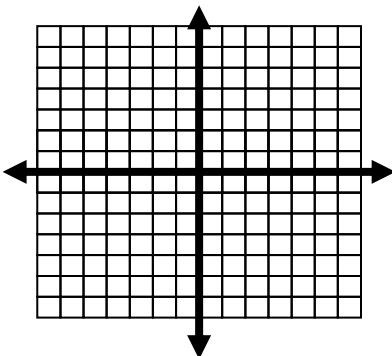
37. Given $h(x)$ is odd and point $B(16, -21)$ is a point on the function. Name another point on the **odd function**.

38. Given $f(x)$ is even and point $C(-14, -16)$ is a point on the function. Name another point on the **even function**.

39. Given $f(x)$ is even and point $D(34, 40)$ is a point on the function. Name another point on the **even function**.

Cumulative Review:

1. Graph the inequality: $2x - y \leq 4$



2. Solve the system of linear equations by using the method of your choice.

$$-3x + 4y = -18$$

$$x + 2y = -4$$