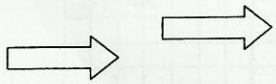
Name _____ Date _____

Unit 1 Transformation Assessment

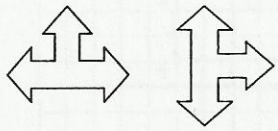
1. Which transformation is shown?



A) dilation B) reflection

C) rotation D) translation

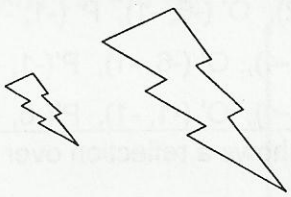
2. Which transformation is shown?



A) dilation B) reflection

C) rotation D) translation

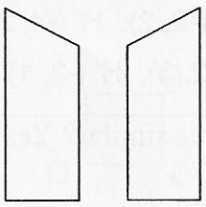
3. Which transformation is shown?



A) dilation B) reflection

C) rotation D) translation

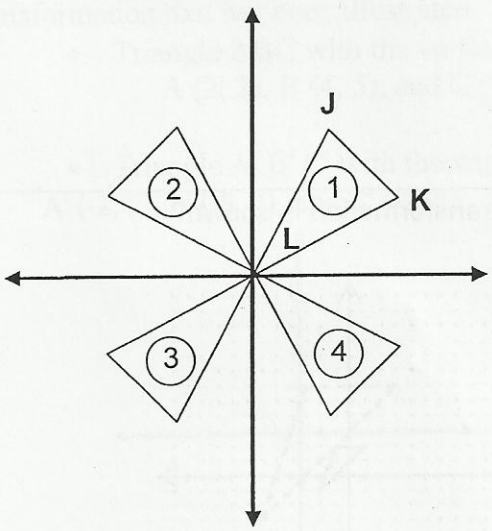
4. Which transformation is shown?



A) dilation B) reflection

C) rotation D) translation

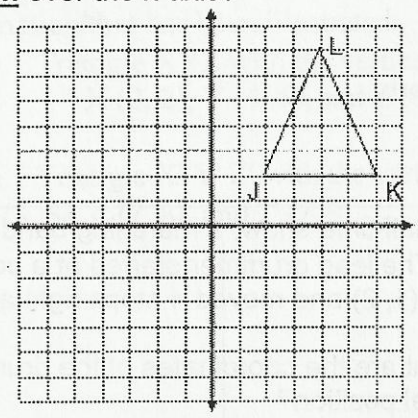
5. Which triangle shows the result after **rotating** triangle JKL 90° counterclockwise?



A) triangle 1 B) triangle 2

C) triangle 3 D) triangle 4

6. Which set of ordered pairs shows the result of a **reflection** over the x-axis?



A) J' (-2, 2), K' (-6, 2), L' (-4, 7)

B) J' (-2, -2), K' (-6, -2), L' (-4, -7)

C) J' (2, -6), K' (6, -6), L' (4, -1)

D) J' (2, -2), K' (6, -2), L' (4, -7)

Match the vocabulary with the correct definition.

_____7. Reflection

_____8. Rotation

_____9. Translation

_____10. Line Symmetry

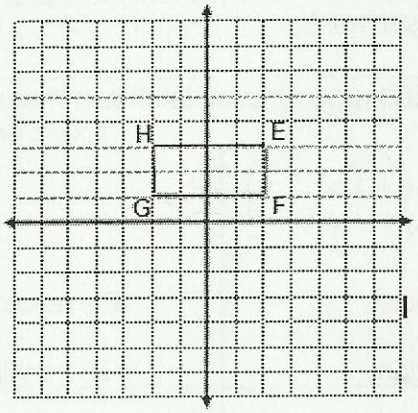
A. A line through a plane figure so that the two halves are mirror images

B. The figure flips across a line of reflection, creating a mirror image.

C. The figure turns around a fixed point.

D. The figure slides along a straight line without turning.

11. Which set of ordered pairs shows the result of a **translation** described by (4,-5)?



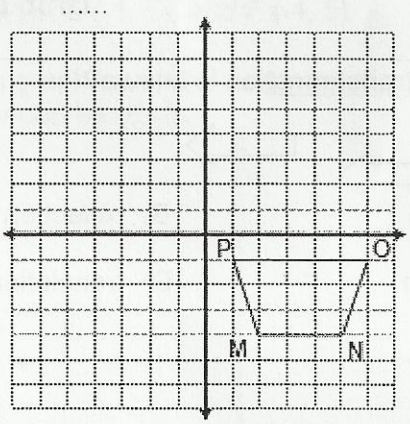
A) E' (2, -3), F' (2, -1), G' (-2, -1), H' (-2, -3)

B) E' (6, -2), F' (6, -4), G' (2, -2), H' (2, -4)

C) E' (-2, 6), F' (-4, 6), G' (-2, 2), H' (-4, 2)

D) E' (2, 1), F' (2, 3), G' (-2, 3), H' (-2, 1)

12. Which set of ordered pairs shows the result of a **reflection** over the y-axis?



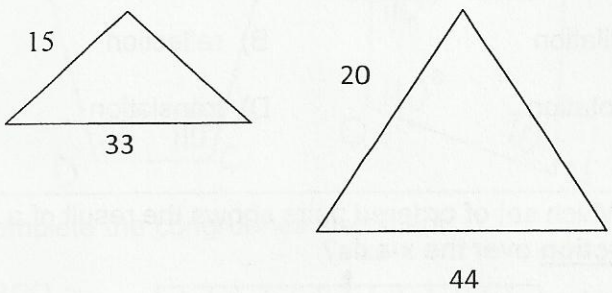
A) M' (2, 4), N' (5, 4), O' (6, 1), P' (1, 1)

B) M' (-2, 2), N' (-5, 2), O' (-6, -1), P' (-1, -1)

C) M' (-2, -4), N' (-5, -4), O' (-6, -1), P'(-1, -1)

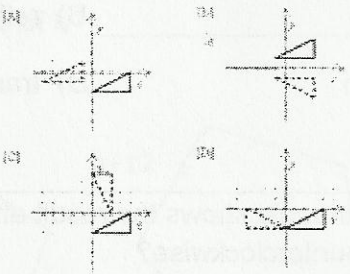
D) M' (-5, -4), N' (-2, -4), O' (-1, -1), P'(-6, -1)

13. Are the following figures similar? Yes or no.



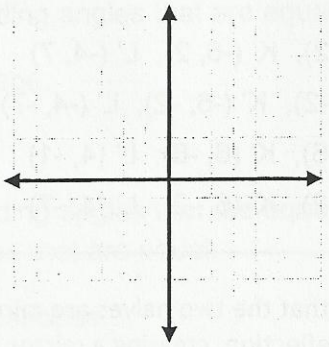
Show your work.

14. Which diagram shows a reflection over the x-axis?



15. At the half-time show, a marching band marched in formation. The lead drummer started at a point with coordinates (1, 2) and moved 4 steps right and 4 steps down.

What are the coordinates of the drummer's final position?



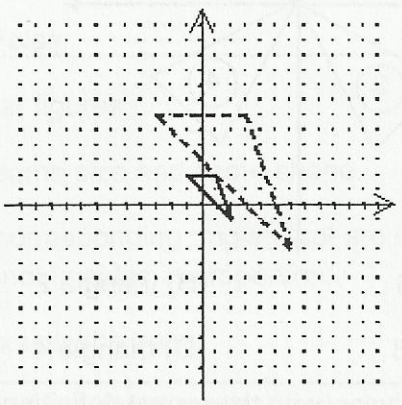
A) (2, 1)

B) (-3, -2)

C) (5, 6)

D) (5, -2)

16. Which transformation is shown?



A) dilation

B) reflection

C) rotation

D) translation

17. Which letter maintains orientation after a reflection over the y-axis?

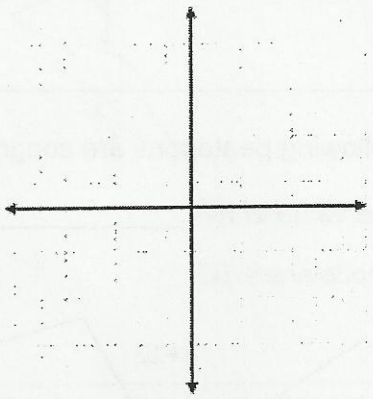
A) V B) Q C) Z D) R

18. Which letter has rotational symmetry?

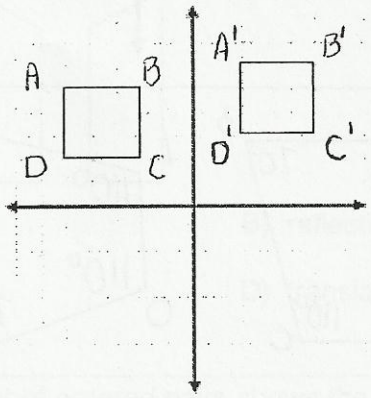
A) V B) Q C) Z D) R

19. Graph the following coordinates.

- Triangle ABC with the vertices A (-4, 2), B (-4, -2), and C (-2, 2)
- Graph its image using the motion rule (x,y)→(x-3, y+2)

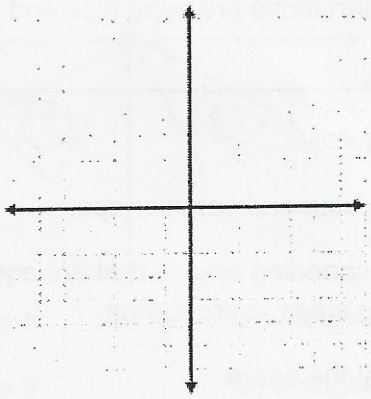


20. Using vector notation, identify the vector used.



21. Graph these coordinates and identify the transformation that has been illustrated.

- Triangle ABC with the vertices A (2, 2), B (4, 5), and C (4, 2).
- Triangle A' B' C' with the vertices A' (-2, 2), B' (-5, 4), and C' (-2, 4).



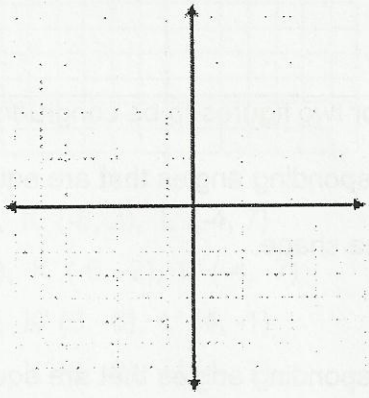
Which transformation is shown?

A) dilation B) reflection

C) rotation D) translation

22. Graph these coordinates and identify the transformation that has been illustrated.

- Triangle XYZ with the vertices X (2, 2), Y (4, 5), and Z (4, 2).
- Triangle X' Y' Z' with the vertices X' (5, 5), Y' (7, 8), and Z' (7, 5).



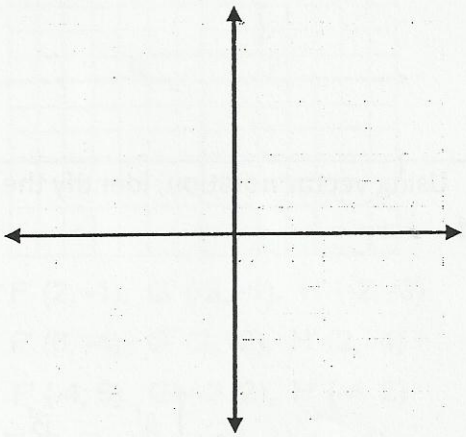
Which transformation is shown?

A) dilation B) reflection

C) rotation D) translation

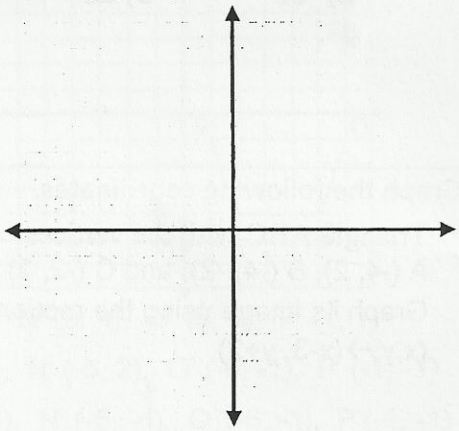
23.

- Graph and label triangle DEF with vertices D (4,-3), E (-3,-3), and F (2,-5).
- Then graph and label its **reflection** D'E'F over the ***x***-axis.

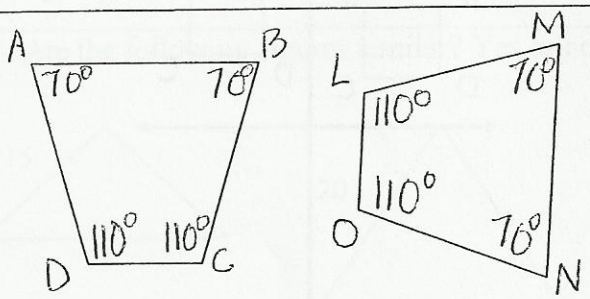


24.

- Graph and label triangle DEF with vertices D (-3,1), E (-1, 5), and F (-4, 5).
- Then graph and label its **translation** D'E'F' described by (6,-3).



25.

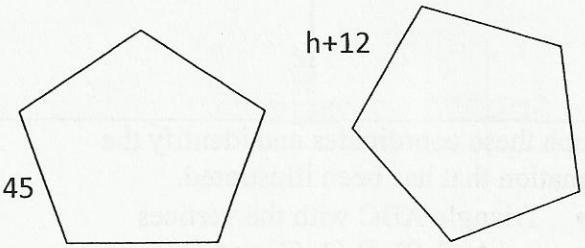


Complete the congruence statement:

ABCD ≅ _____

26. The following pentagons are congruent.

What is the value of h? _____



27. All transformations maintain orientation.

True or False.

28. All transformations preserve size and shape.

True or False.

29. In order for two figures to be congruent they must

a) have corresponding angles that are equal.

b) be the same shape.

c) look alike.

d) have corresponding angles that are equal and corresponding sides that are equal.

Choose the best response.

30. Similar figures

a) have same size and same shape.

b) have corresponding angles that are equal and corresponding sides in proportion.

c) look exactly the same.

d) can be determined just by looking at them.

Choose the best answer.