**Transformations Test** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_

Directions: Refer to points A(-2, 4), B(-3, -1), and C(2, 8) graphed on the grid below to answer questions 1 through 5 (one point each).



\_\_\_\_\_1. If point A was dilated by a scale factor of 2, the new coordinates would be:

 A. (4, 8) B. (-4, 8)

\_\_\_\_\_2. If point B was translated right 3 units and up two units, the new coordinates would

 be:

 A. (0, 1) B. (1, 0)

\_\_\_\_\_3. If point C was reflected over the y-axis, the new coordinates would be:

 A. (-2, 8) B. (2, -8)

\_\_\_\_\_4. If point A was rotated about the origin, the new coordinates would be:

 A. (2, -4) B. (4, -2)

\_\_\_\_\_5. If the rectangle in quadrant IV was rotated 90 degrees clockwise, it new image

 would be in quadrant:

 A. I B. III



7. How many lines of symmetry does a rectangle have?

 A. one B. two

8. Which letter has rotational and line symmetry?

 A. Z B. X

9. What is the minimum number of degrees this parallelogram can be turned to show

 rotational symmetry?

 A. 90 degrees B. 180 degrees

Directions: Triangle HIJ is a rotation of triangle EFG. Answer questions 10 and 11 using the diagram below.



10. Which of the following statements is true for the triangles above?

 A. Side JI is congruent to side EG.

 B. There corresponding angles are congruent.

11. The perimeters and areas of the two triangles are not congruent.

 A. true B. false

Directions: Identify each of the following transformations as a REFLECTION, TRANSLATION, DILATION, or ROTATION. Write your answer above each diagram.

12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 

14.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 15.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 

Directions: Answer each question by circling the correct answer and writing the letter of your answer on the line provided.

\_\_\_\_\_16. When a figure is dilated, all of the following change except:

 A. the shape of the new figure

 B. the area and perimeter of the new figure

 C. the length of the sides of the new figure

\_\_\_\_\_17. The size and shape of the original and new figures remain congruent after all

 of the following transformations except a:

 A. reflection B. rotation C. dilation

\_\_\_\_\_18. Corresponding angles are congruent in dilated, translated, rotated and reflected

 figures.

 A. true B. false

Directions: Tranform each of the figures below as described. Label all of your points. List

 the coordinates of your new points in the space provided (5 points each).

19. is graphed with vertices A(1, -3), B(6, -2), and C(3, -4). Label points A, B, and C.

 Reflect the triangle over the y-axis. Label your new points. List the coordinates of A’, B’,

 and C’ in the space to the right of the grid.



 20. Translate  above right 2 units and up 4 units. Plot and label the new points A”,

 B”, and C”. List the coordinates of the new points in the space provided below.

 A” ( ) B” ( ) C” ( )

 Review Questions (one point each)

\_\_\_\_\_21. A quadrilateral must have:

 A. opposite sides congruent B. an interior angle sum of 360 degrees

\_\_\_\_\_22. Two rays that share the same endpoint form:

 A. a line B. an angle

\_\_\_\_\_23. Two angles whose sum is 90 degrees are:

 A. complimentary B. supplementary

\_\_\_\_\_24. Which of the following groups of side lengths form a right triangle?

 A. 12, 15, 18 B. 18, 24, 30

\_\_\_\_\_25. The Pythagorean Theorem can be used to find the missing side of an acute triangle.

 A. true B. false

 1 100 degrees

 2 3

 4 5

26. Angle 1 measures \_\_\_\_\_\_\_degrees.

27. Angle 2 measures\_\_\_\_\_\_\_\_degrees.

Word Bank for 28-30: adjacent vertical corresponding

28. Angles 1 and 3 are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_angles.

29. Angles 3 and 5 are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_angles.

30. Angles 2 and 3 are\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_angles.