Mathematics

Power Standard 8:7

Summative Test

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_\_\_

1. A triangle with coordinates (-8,3), (-2,5), (-1,1) is reflected over the x-axis. The coordinates of the new figure are:

 a. (8,-3), (2, -5), (1,-1)

 b. (3,-8), (5,-2), (1,-1)

 c. (-8,-3), (-2, -5), (-1,-1)

 d. (-7,4), (-1,6), (0,2

1. A triangle has coordinates (0,0), (4,3), (-1,1). Joe is making a new triangle using a scale factor of 4. The coordinates of the new figure are:

a. (0,0), (1, 3/4), ( -1/4, 1/4)

b. (0,0), (16,12), (-4,4)

c. (4,4), (8,7), (3,5)

d. (0,0), (8,6), (-2,2)

1. Identify the number of rotational symmetries and the angle of rotation for an equilateral triangle.

 a. none

 b. 4; 900, 1800, 2700

 c. 1; 3600

 d. 3; 1200, 2400

1. A triangle with coordinates (-2,3), (1,3), (1,5) is given a 1800 rotation. The coordinates of the new figure are:

a. (2,-3), (-1,-3), (-1,-5)

b. (-3,2), (-3,-1), (-5,-1)

c. (-2,3), (1,3), (1,5)

d. (-2,-3), (1,-3), (1,-5)

1. A triangle with coordinates (-2,3), (1,3), (1,5) is translated 4 units to the right and 3 units down. The coordinates of the new figure are:

a. (2,6), (5,6), (5,8)

b. (-6,6) , (-3,6), (-3,8)

c. (0,2), (0,5), (2,5)

d. (2,0), (5,0), (5,2)

1. How does a scale factor of 4 affect the new figure? Explain.
2. Graph triangle ABC with coordinates A(0,0), B(1,3), C(5,2). Reflect the triangle over the x-axis and give the coordinates of the new triangle. Graph the reflected figure.
3. Graph triangle ABC with coordinates A(0,0), B(1,3), C(5,2). Give the triangle a 1800 rotation about the origin and give the coordinates of the new figure. Graph the rotated figure.
4. Graph triangle ABC with coordinates A(0,0), B(1,3), C(5,2). Translate the figure 3 units to the right and 6 units down and give the coordinates of the new figure. Graph the new figure.