Mathematics

Power Standard 8:7

Pre-Formative Test

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

1. A triangle with coordinates (1,4), (4,1), (2,2) is reflected over the x- axis. The coordinates of the new figure are:

a. (-1,-4), (-4,-1), (-2,-2)

b. (4,1), (1,4), (2,4)

c. (-1,4), (-4,1), (-2,2)

d. (1,-4), (4,-1), (2, -2)

1. A triangle has coordinates (2,4), (2,8), (4,2) . Sam is making a new triangle using a scale factor of ½. The coordinates of Sam’s triangle are:

a. ( 1,2 ), ( 1,4 ), ( 2,1 )

b. ( 4,8 ), ( 4,16 ), ( 8,4 )

c. ( -2,-4 ), ( -2,-8 ), ( -4,-2 )

d. ( -1,-2 ), ( -1,-4 ), ( -2,-1 )

1. Identify the number of rotational symmetries and the angle(s) of rotation for a square.

a. 1; 3600

b. 2; 1800

c. 4 ; 900, 1800, 2700

d. none

1. A triangle with coordinates (1,1), (1,4), (3,2) is given a 900 counterclockwise rotation. The coordinates of the new figure are:

a. (-1,-1), (-1,-4), ( -3,-2)

b. (1,1), (4,1 ), (2,3)

c. (1,-1), (4,-1), (2,-3)

d. (-1,1), (-4,1), (-2,3)

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

a. (4,3 ), (4,7 ), (6,5 )

b. (-2,-1), (-2,2 ), ( 1,0)

c. ( -1,4 ), ( -1,7 ), ( 0,5 )

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

1. How does a scale factor of 3/2 affect the new figure? Explain.
2. Given triangle ABC with coordinates A(-1,1), B (-1,5), C(2,4), reflect the triangle over the x-axis and give the coordinates of the new triangle.

Graph.

1. Given triangle ABC with coordinates A(-1,1), B (-1,5), C(2,4), rotate the triangle a 900counterclockwise about the origin and give the coordinates of the new figure. Graph.
2. Given triangle ABC with coordinates A(-1,1), B (-1,5), C(2,4). Translate the figure 2 units to the right and 5 units up and give the coordinates of the new figure. Graph.