Willard Middle School – Mathematics

FORMATIVE TEST – Power Standard 8:5

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

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

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

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

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

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

1. A quadrilateral has coordinates (2,8), (2,4), (4,4), (8,10). Karen is making a new quadrilateral using a scale factor of 3/2. The coordinates of the new figure are:

 a. ( 1,4 ), ( 1,2 ), ( 2,2 ), ( 4,5 )

b. ( 4/3, 16/3 ), ( 4/3,8/3 ), ( 8/3,8/3 ), (16/3,20/3 )

c. ( 2.5,8.5 ), ( 2.5,4.5 ), ( 4.5,4.5 ), (8.5,10.5 )

d. ( 3,12 ), ( 3,6 ), ( 6,6 ), ( 12,15 )

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

 a. 5; 720, 1440, 2160, 2880

 b. none

 c. 2; 1800

 d. 3; 1200, 2400

1. A triangle with coordinates (1,1), (1,4), (3,2) is given a 1800 rotation. The

coordinates of the new figure are:

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

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

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

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

1. A triangle with coordinates (1,1), (1,4), (3,2) is translated 2 units to the left

and 1 unit up. The coordinates of the new figure are:

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

b. ( 3,0 ), ( 3,3 ), ( 5,1 )

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

 d. ( -1,0 ), ( -1,3 ), ( 1,1 )

1. Will a scale factor of 1/2 enlarge or shrink the new figure? Explain.
2. Given triangle ABC with coordinates A(1,1), B(1,5), C(3,2). Reflect the triangle over the y-axis and give the coordinates of the new triangle.

Graph.

1. Given triangle ABC with coordinates A(1,1), B(1,5), C(3,2), rotate the triangle 1800 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(3,2), translate the figure 4 units to the left and 4 units up and give the coordinates of the new figure. Graph.