

PS 89 Dr Lydia T Wright School Of Excellence

MATH GRADE 8: MAE8G 1 MATH GRADE 8

## GRADE 8 MATH WORKOUT SET II

Instructor: ALFRED KANYURU

Name: \_\_\_\_\_

Score:  / 100

Question 1

/1

Laura has saved \$1800 to use as a down payment on a new car. If she wants to continue saving \$150 a month, which equation will determine how much money,  $y$ , Laura can save in  $x$  months?

$y = 150x$

$y = x + 1800$

$y = 1800x - 150$

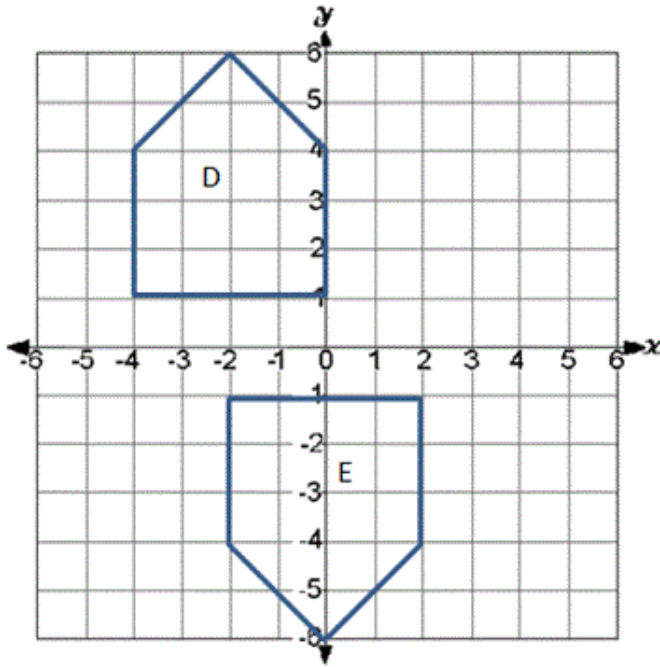
$y = 150x + 1800$

Name: \_\_\_\_\_

Question 2

/1

Pentagon D and pentagon E, shown below, are congruent.



Which sequence could be used to transform pentagon D to pentagon E?

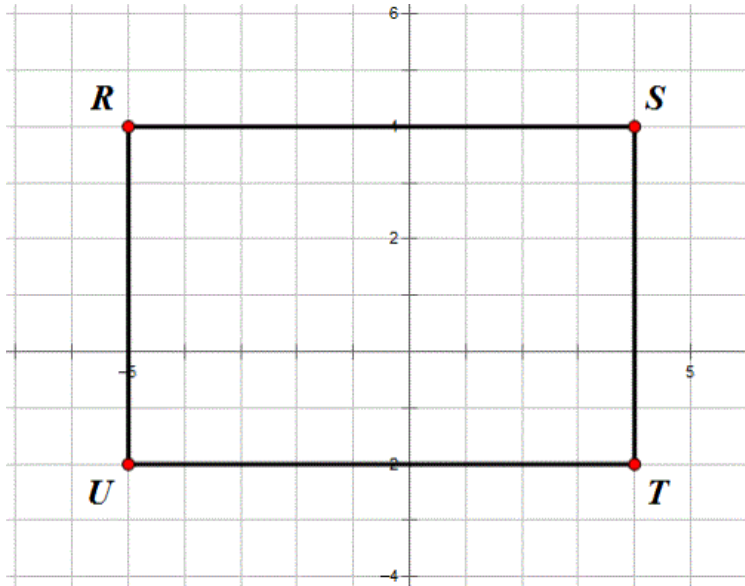
- A reflection over the x-axis and a translation 2 units right.
- A rotation  $180^\circ$  about the origin.
- A dilation with a scale factor of 2.
- A reflection over the y-axis and a translation 2 units down.

Name: \_\_\_\_\_

Question 3

 /1

The rectangle below was dilated by a scale factor of  $\frac{1}{3}$ .



After the dilation, what is the perimeter of  $R'S'T'U'$ ?

- 60 units
- 30 units
- 15 units
- 10 units

Name: \_\_\_\_\_

Question 4

/1

A series of transformations on quadrilateral  $P$  resulted in quadrilateral  $Q$ .

The angle measures of quadrilateral  $P$  are congruent to those of quadrilateral  $Q$ .

The side lengths of quadrilateral  $Q$  are 4 times as long as those of quadrilateral  $P$ .

Which transformation on quadrilateral  $P$  must be included to result in quadrilateral  $Q$ ?

Dilation

Rotation

Reflection

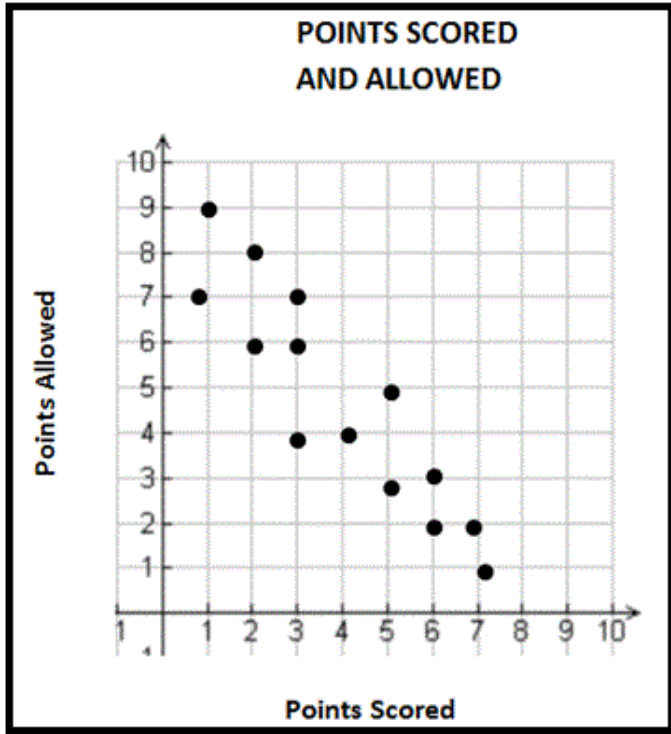
Translation

Name: \_\_\_\_\_

Question 5

/1

The scatter plot below shows the points scored and the points allowed by the Titans soccer team for several games.



Which association (correlation) best describes the data?

No association (correlation)

Positive association (correlation)

Negative association (correlation)

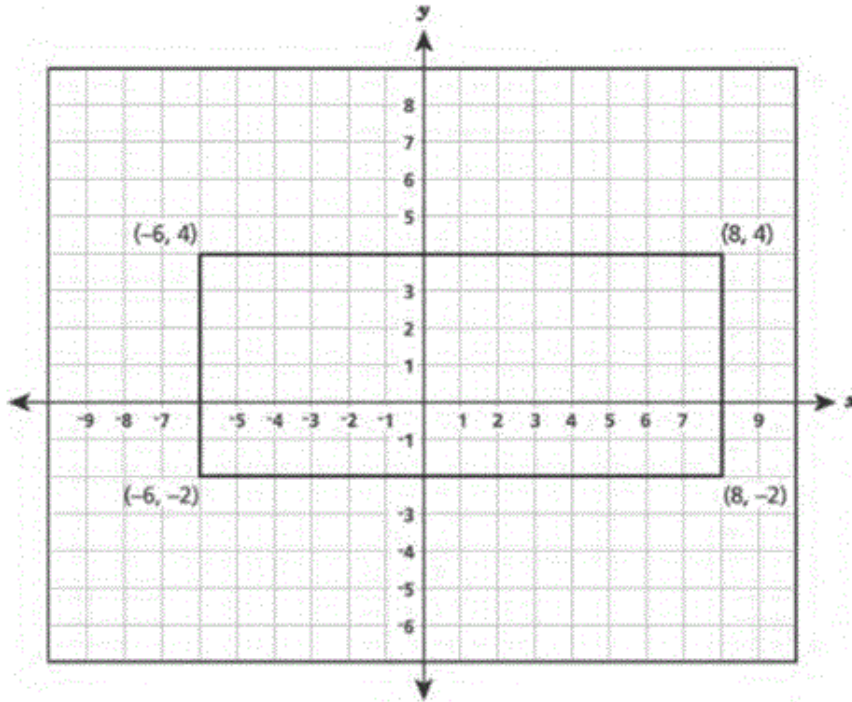
Nonlinear association (correlation)

Name: \_\_\_\_\_

Question 6

/1

Thomas shrunk a plan for an outdoor stage. The original plan is shown below.



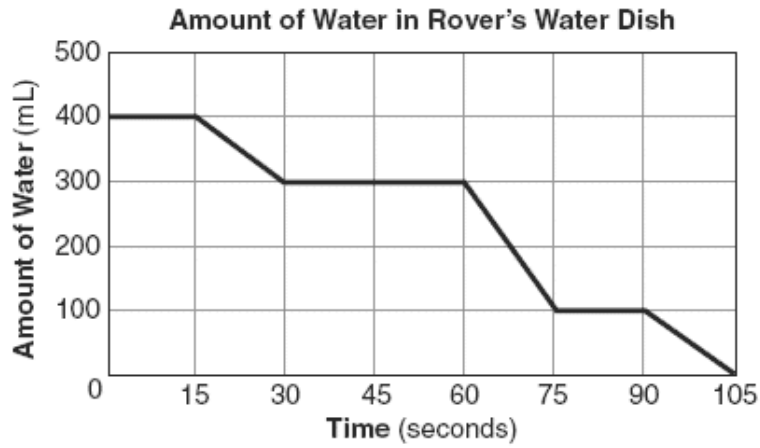
He dilated the outdoor stage by a scale factor of one-half with the center of dilation at the origin. Which ordered pair will be the coordinates of one of the new vertices?

- (4, -1)
- (-3, -2)
- (16, 8)
- (-18, -6)

Name: \_\_\_\_\_

Question 7

/1



During what time interval did Rover drink his water the fastest?

- 15-30 seconds
- 30-60 seconds
- 60-75 seconds
- 90-105 seconds

Question 8

/1

Solve the system of equations below.

$$\begin{aligned} 4x - 2y &= 16 \\ -2y + 4x &= 8 \end{aligned}$$

- $x = 8, y = 6$
- $x = 10, y = -4$
- No solution
- Infinitely many solutions



Name: \_\_\_\_\_

Question 9

/1

What is one-third of  $3^6$ ?

$1^2$

$3^2$

$3^5$

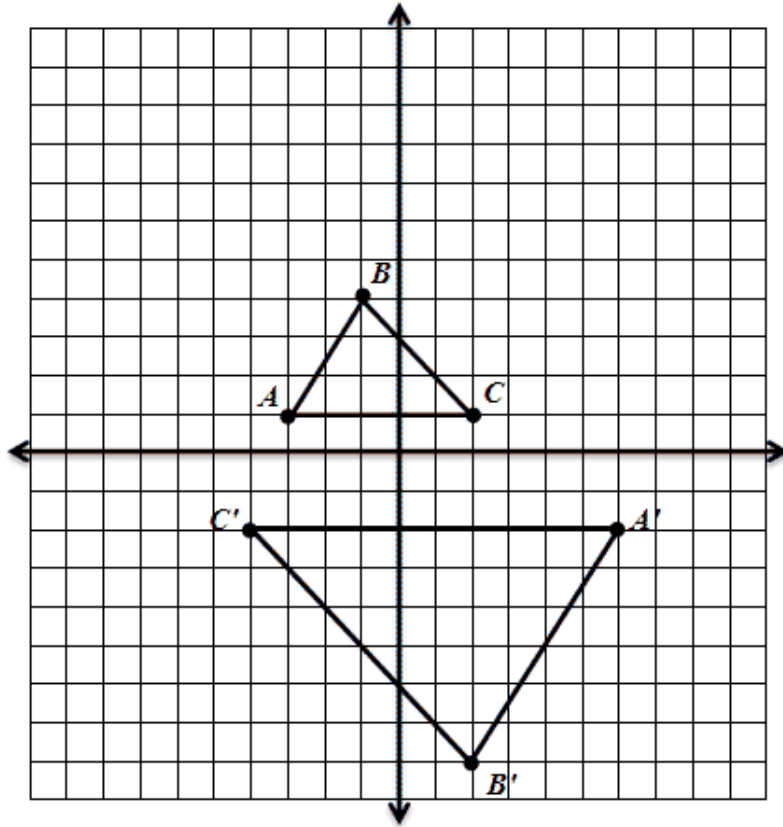
$9^6$

Name: \_\_\_\_\_

Question 10

/1

In the graph shown below,  $\Delta B'C'$  is the image produced by a dilation of the pre-image  $\Delta ABC$ .



What scale factor was used?

$1/2$

2

-2

$-1/2$

Name: \_\_\_\_\_

Question 11

/1

Which relation is *not* a function?

$\{(2,4), (1,2), (0,0), (-1,2), (-2,4)\}$

$\{(2,4), (1,1), (0,0), (-1,1), (-2,4)\}$

$\{(2,2), (1,1), (0,0), (-1,1), (-2,2)\}$

$\{(2,2), (1,1), (0,0), (1,-1), (2,-2)\}$

Question 12

/1

What is the solution of the system of equations  $2x - 5y = 11$  and  $-2x + 3y = -9$ ?

$(-3,-1)$

$(-1,3)$

$(3,-1)$

$(3,1)$