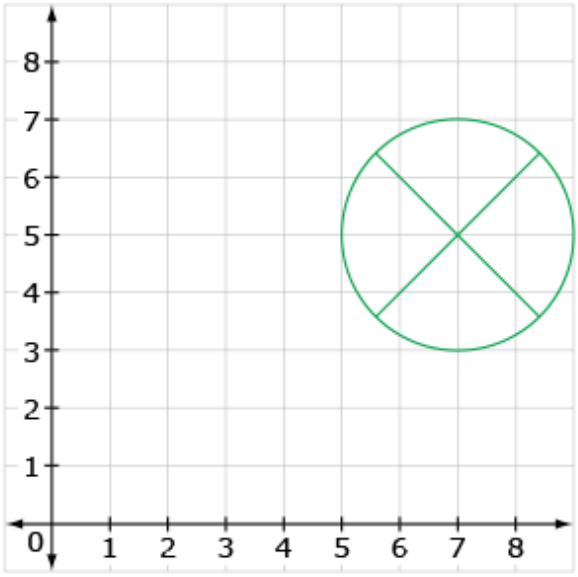
Level 1: Geometry Posttest Answer Key

Question 1:

Kaya drew this shape on a coordinate grid to represent a light switch on an electrical diagram.



The center of the light switch is located 7 units to the right of the origin and 5 units above the origin.

What is the *y*-coordinate value of the point?

a. 0

b. 5

c. 7

d. 12

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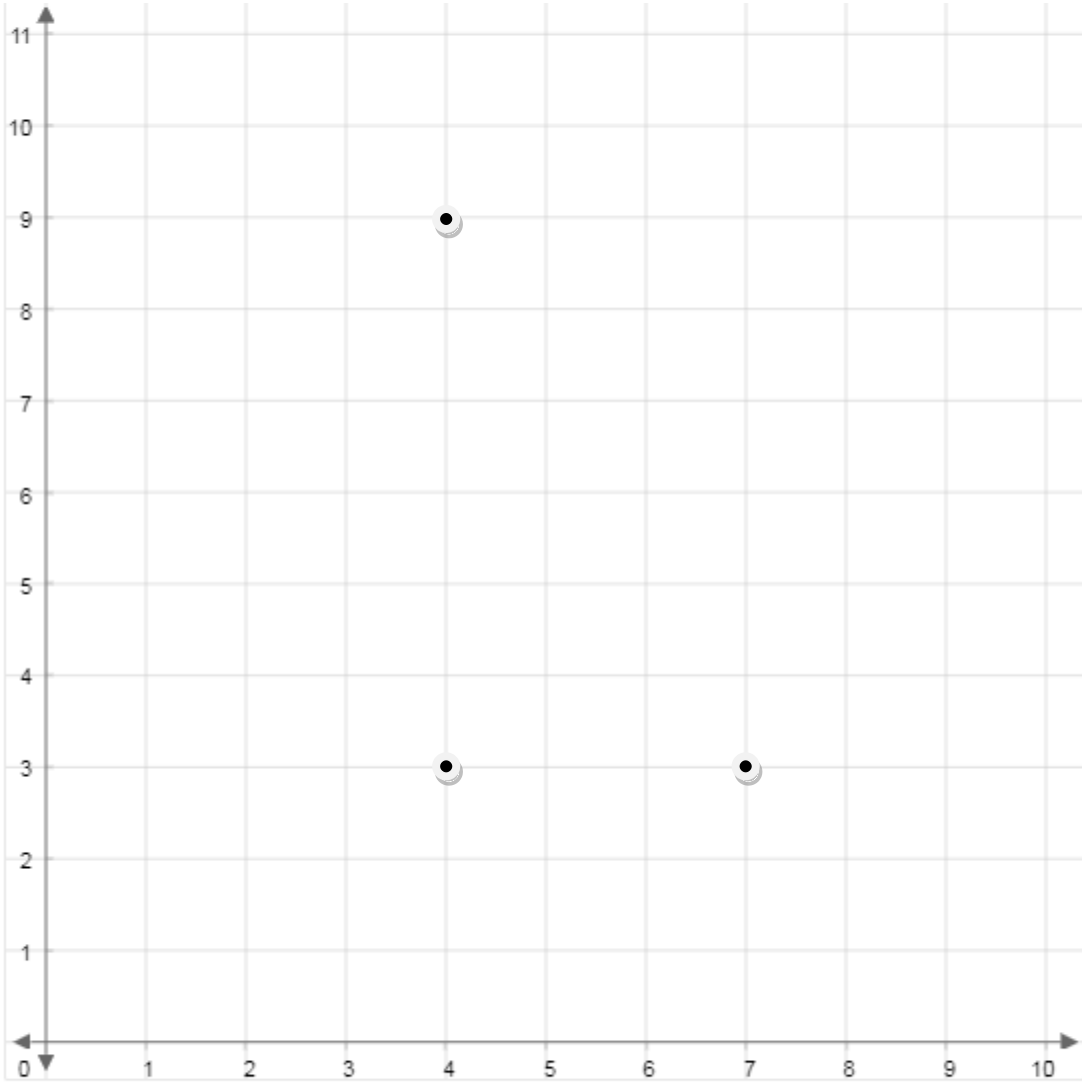
Question 2:

A graphic designer is creating a company logo. The designer plots the following points on a coordinate grid.

Point *A*: (4, 9)
Point *B*: (4, 3)
Point *C*: (7, 3)

a. Plot the points on the grid.



b. If the designer connects the points in order starting with Point *A*, what letter is formed?

L

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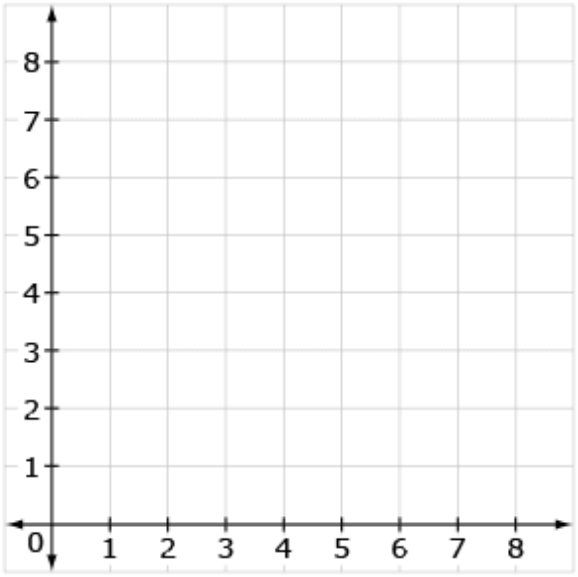
Question 3:

You may use the grid to help answer the questions that follow.



Kael draws two points (7, 5) and (7, 1) to form a line. Kael draws a second line that is parallel to the first line. One point on the second line is 3 units from the first line.

Which of the following could be the coordinates of two points on the second line? (Select all that apply.)

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

b. (5, 7), (1, 7)

c. (1, 10), (4, 10)

d. (7, 3), (7, 6)

e. (10, 2), (10, 8)

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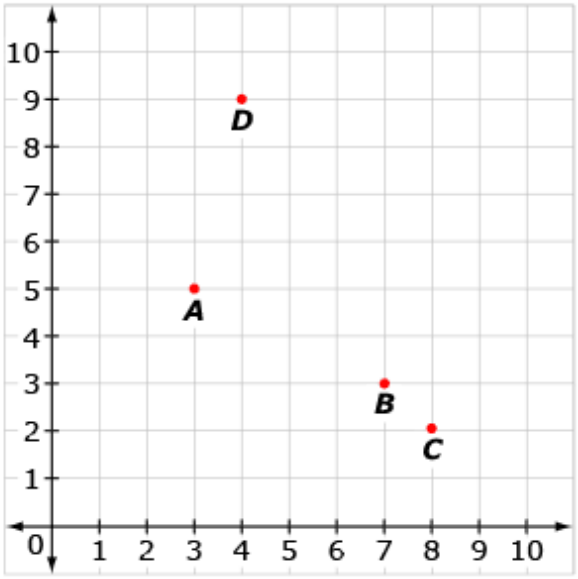
Question 4:

An animator plots the points shown on the coordinate grid.



Which points have a *y*-coordinate value that is greater than its *x*-coordinate value? (Select all that apply.)

a. Point *A*

b. Point *B*

c. Point *C*

d. Point *D*

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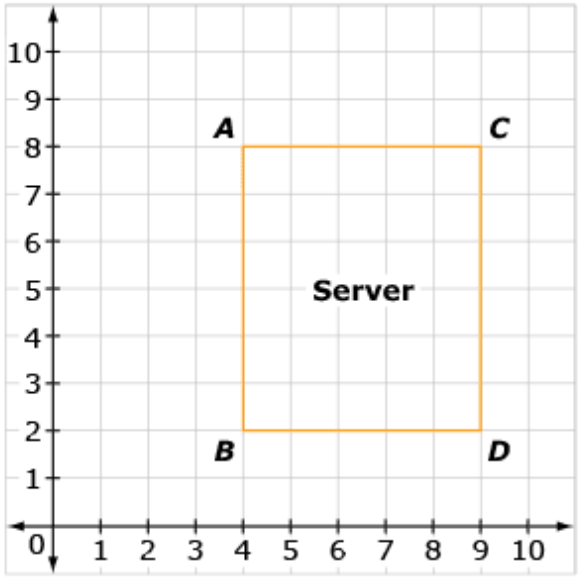
Question 5:

Keith is a network engineer. He drew a server on the coordinate grid.



Which statement is true?

a. Points *A* and *B* have the same *y*-coordinate value.

b. Points *C* and *D* have the same y-coordinate value.

c. Points *A* and *B* have the same *x*-coordinate value.

d. Points *B* and *D* have the same *x*-coordinate value.

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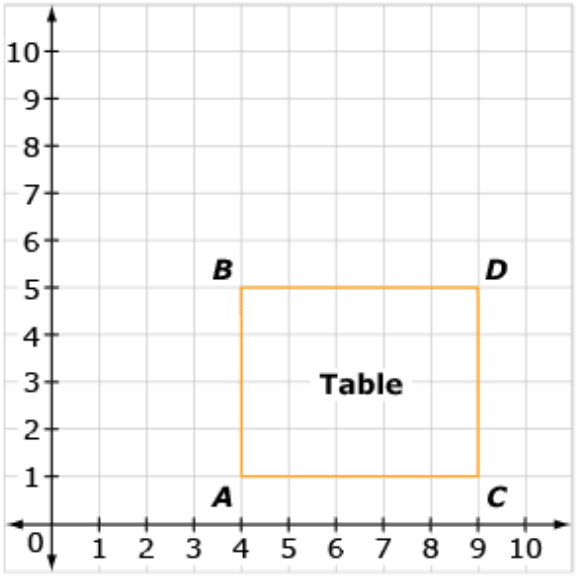
Question 6:

A food photographer is designing a layout for a client. The table is shown on the coordinate grid.



The client wants the table two units to the right.

What are the new coordinates of Point *D*?

a. (11, 5)

b. (5, 11)

c. (7, 5)

d. (7, 9)

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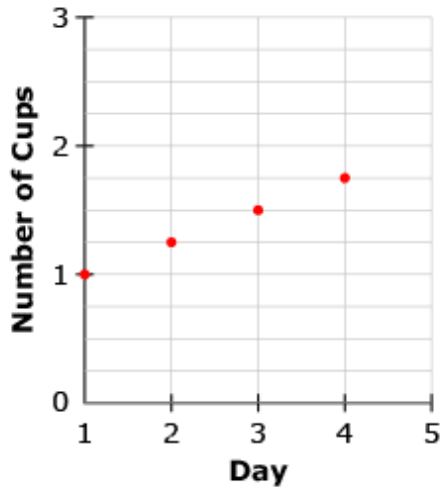
Question 7:

A veterinarian creates this graph to show how many cups of milk to feed a newborn piglet each day.



If the pattern continues, how many cups of milk should the piglet have on Day 5?

2 cups

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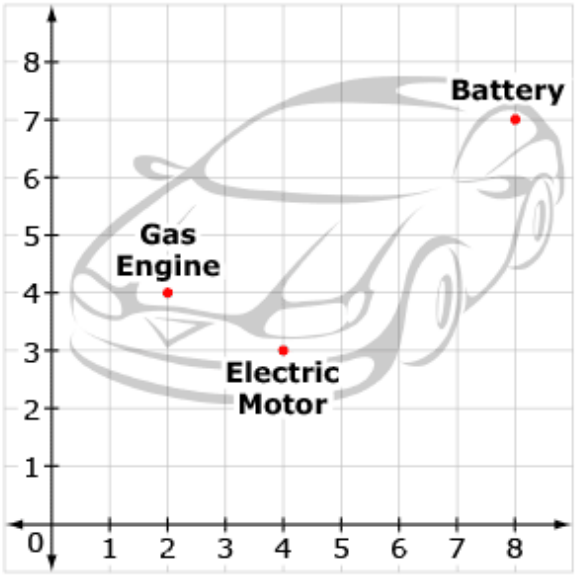
Question 8:

Kendall works on hybrid cars. This grid shows the location of four different parts of a typical hybrid car.



The gas tank is located between the battery and the electric motor.

Which coordinates could represent the location of the gas tank?

a. (6, 5)

b. (6, 3)

c. (5, 6)

d. (3, 2)

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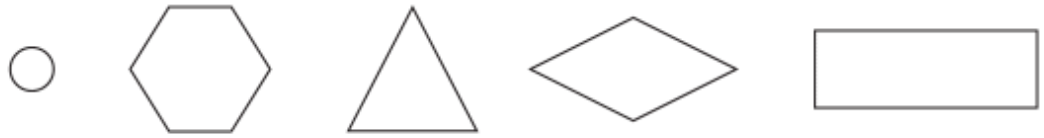
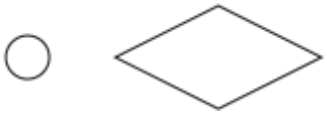
Question 9:

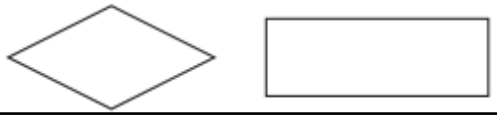
Electricians use these symbols to create electrical diagrams.



Which pair of shapes shows two parallelograms?

a. 

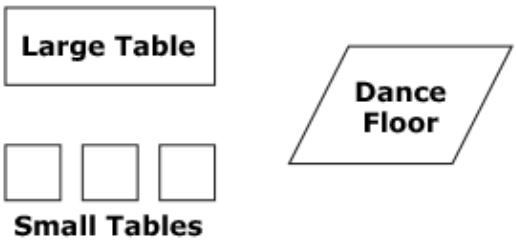
b. 

c. 

d. 

Question 10:

Abena is an event planner. She is looking at this room plan.



Which statement is true about the shapes used in the room plan?

a. All of the shapes in the room plan are rectangles.

b. The shape of the large table is both a square and a rectangle.

c. The shape of the dance floor is both a square and a rhombus.

d. The shape of one small table is both a rectangle and a rhombus.

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Question 11:

An event planner is drawing a seating plan. To fit in the space, the table next to the dance floor must be a quadrilateral that is both a parallelogram and a rectangle.

What shape must he use for the table?

The table must be shaped like a square .

Question 12:

A sheet of metal is cut in the shape of a quadrilateral with two pairs of congruent, parallel sides and four right angles.

Which of the following could be the shape?

a. trapezoid

b. rectangle

c. circle

d. kite

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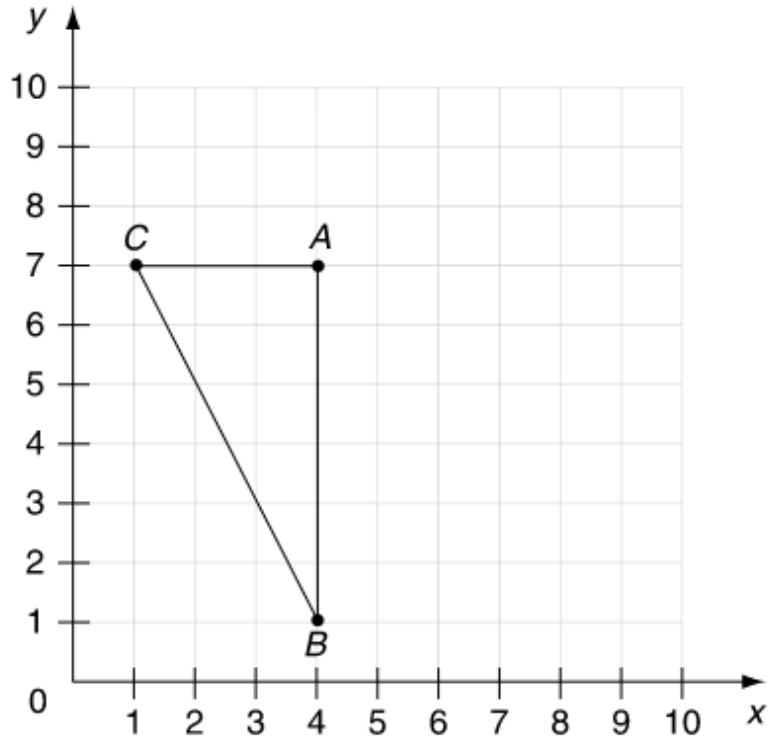
Question 13:

Look at triangle *ABC* shown on the coordinate plane below.



What are the coordinates of vertex *A* of the triangle?

a. (1, 7)

b. (4, 1)

c. (4, 7)

d. (7, 4)

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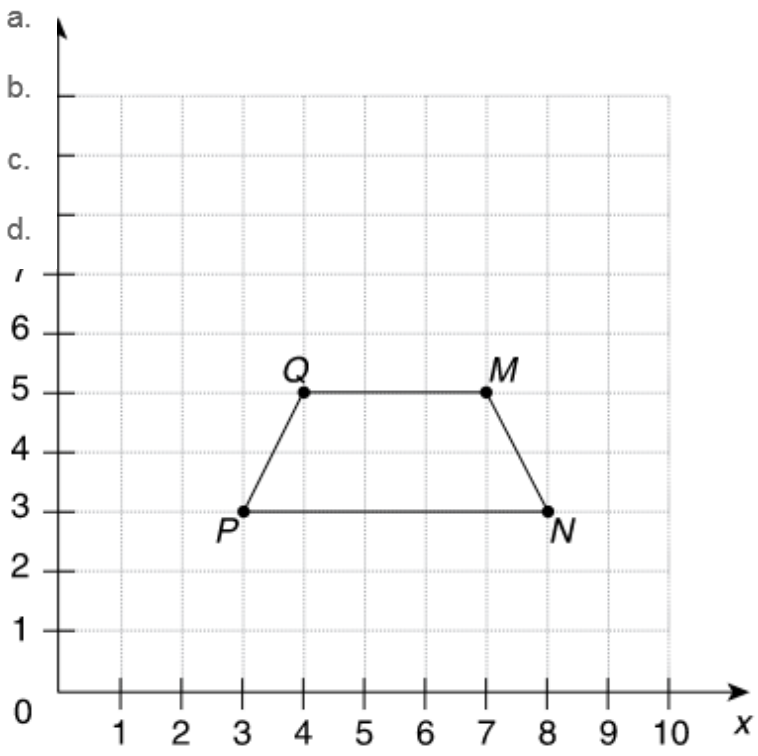
Question 14:

Look at the trapezoid graphed on the coordinate plane below.



What are the coordinates of vertex *M* of the trapezoid?

(7 , 5)

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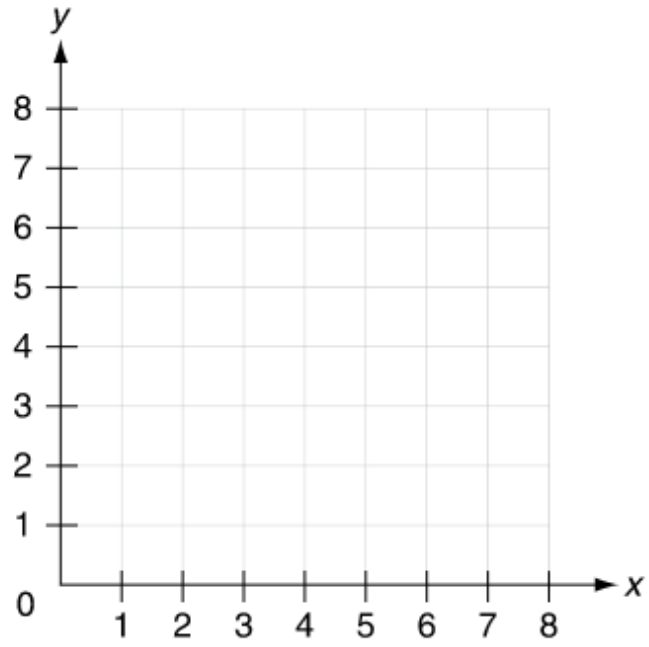
Question 15:

You may use the coordinate plane below to help you answer this question.



The coordinates of three vertices of a rectangle are located at (4, 7), (6, 7), and (6, 3).

What are the coordinates of the fourth vertex?

(4 , 3)

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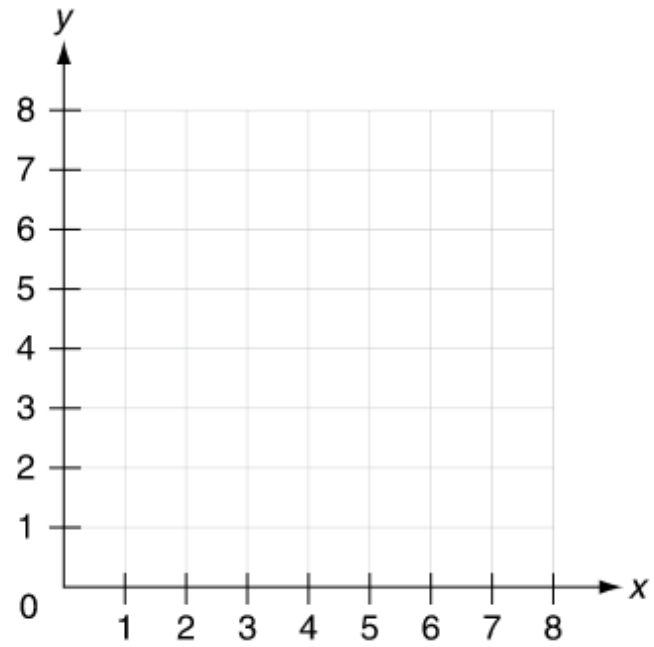
Question 16:

You may use the coordinate plane below to help you answer this question.



Three vertices of a square are located at (2, 1), (6, 1), and (2, 5).

What are the coordinates of the fourth vertex?

(6 , 5)

Stop