

1. Which of the following points in the Cartesian Plane have positive x -coordinate and negative y -coordinate?

1 / 1 puntos

- ☐ (0, 0)
- ☒ (7, -1)
- ☐ (-4, 5)
- ☐ (5, 7)



Correcto

The x -coordinate, 7, is positive, and the y -coordinate, -1, is negative.

2. Which of the following points is in the first quadrant of the Cartesian Plane?

1 / 1 puntos

- ☐ (-4, -7)
- ☒ (7, 11)
- ☐ (5, -1)
- ☐ (-5, 1)

3. Let A, B, C, D be points in the Cartesian Plane, and let the set $S = \{B, C, D\}$

1 / 1 puntos

Suppose that the distances from A to B, C, D are 5.3, 2.1, and 11.75, respectively.

Which of the following points is the nearest neighbor to the point A in the set S ?

- ☐ D
- ☐ B
- ☐ A
- ☒ C

4. Find the distance between the points $A = (2, 2)$ and $B = (-1, -2)$.

1 / 1 puntos

- ☐ -25
- ☐ 25
- ☒ 5
- ☐ 1

5. Find the slope of the line segment between the points $A = (0, 1)$ and $B = (1, 0)$.

1 / 1 puntos

- ☒ -1
☐ 1
☐ $\sqrt{2}$
☐ 0

✓ Correcto

The slope of this line segment is $\frac{0-1}{1-0} = -1$

6. Find the point-slope form of the equation of the line with slope -2 that goes through the point $(5, 4)$.

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- ☒ $y - 4 = -2(x - 5)$
☐ $(5, 4)$
☐ $y - 5 = -2(x - 4)$
☐ $y - 4 = 2(x - 5)$

7. Which of the following equations is for a line with the same slope as $y = -3x + 2$?

1 / 1 puntos

- ☐ $y = 8x - 3$
☐ $y = 5x$
☒ $y = -3x - 8$
☐ $y = 5x + 2$

8. Which of the following equations is for a line with the same y -intercept as $y = -3x + 2$?

1 / 1 puntos

- ☐ $y = 8x - 3$
☒ $y = 5x + 2$
☐ $y = 5x$
☐ $y = -3x - 8$

✓ Correcto

The slope-intercept formula for a line is $y = mx + b$, where m is the slope and b is the y -coordinate of the point where the line hits the y -axis. This line has a y -intercept of 2 which is the same as the given line.

9. How many lines contain both the point $A = (1, 1)$ and the point $B = (2, 2)$?

0 / 1 puntos

- ☐ None
☐ 2
☒ infinitely many
☐ 1

10. Suppose that we have two sets, $A = \{a, b\}$ and $Z = \{x, y\}$. How many different functions $F : A \rightarrow Z$ are possible?

0 / 1 puntos

- ☒ There are infinitely many
- ☐ 1
- ☐ There are none
- ☐ 4

Incorrecto

The set A is finite, and each element in A can only be transformed into finitely many choices of element in Z .

11. How many graphs contain both the point $A = (0, 0)$ and the point $B = (1, 1)$

1 / 1 puntos

- ☐ 2
- ☒ Infinitely many
- ☐ None
- ☐ 1

12. Suppose that $g : \mathbb{R} \rightarrow \mathbb{R}$ is a continuous function whose graph intersects the x -axis more than once. Which of the following statements is true?

1 / 1 puntos

- ☐ g is strictly decreasing.
- ☒ g is neither strictly increasing nor strictly decreasing.
- ☐ All of the above.
- ☐ g is strictly increasing.

Correcto

The function g fails the horizontal line test, so it can neither be strictly increasing nor strictly decreasing.

13. Find the slope of the line segment between the points $A = (1, 1)$ and $B = (5, 3)$.

1 / 1 puntos

- ☒ $\frac{1}{2}$
- ☐ 2
- ☐ 4
- ☐ $\sqrt{20}$