✓ **¡Felicitaciones! ¡Aprobaste!**

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100 %

Practice quiz on the Cartesian Plane

PUNTOS TOTALES DE 5

1. Which of the following points in the Cartesian Plane is on the y-axis?

1 / 1 puntos

○ $(1, 1)$

○ $(-5, 0)$

◉ $(0, -5)$

○ $(5, 0)$

> ✓ **Correcto**
> The y-axis is defined to be all points in the Cartesian plane with zero as x-coordinate. The point $(0, -5)$ meets that requirement.

2. Find the distance between the points $A = (2, 2)$ and $C = (3, 3)$:

1 / 1 puntos

◉ $\sqrt{2}$

○ 2

○ 0

○ 1

> ✓ **Correcto**
> Recall that the distance between points (a, b) and (c, d) is $\sqrt{(c - a)^2 + (d - b)^2}$.
>
> In this case $(a, b) = (2, 2)$ and $(c, d) = (3, 3)$, so the distance is $\sqrt{(3 - 2)^2 + (3 - 2)^2} = \sqrt{2}$.

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3. Find the point-slope form of the equation of the line that goes between $A = (1,1)$ and $B = (5,3)$:

  ○ $y - 3 = \frac{1}{2}(x - 1)$

  ○ $y = \frac{1}{2}x$

  ◉ $y - 1 = \frac{1}{2}(x - 1)$

  ○ $y - 1 = \frac{1}{2}(x - 5)$

> ✓ **Correcto**
>
> The point-slope form for the equation of a line with slope m that goes through the point (x_0, y_0) is $y - y_0 = m(x - x_0)$
>
> In this case, the slope $m = \dfrac{3 - 1}{5 - 1} = \dfrac{1}{2}$
>
> We can choose either A or B for the point on the line, but in neither case do we get this chosen answer.

4. Which of the following points is on the line with equation:

$y - 1 = 2(x - 2)$?

  ○ $(2, 3)$

  ○ $(0, 0)$

  ◉ $(2, 1)$

  ○ $(3, 2)$

> ✓ **Correcto**
>
> If we plug in 1 for y and 2 for x in the equation of the line, we make a true statement, $0 = 0$, so this point lies on the line.

5. Suppose that a line ℓ has slope 2 and goes through the point $(-1, 0)$. What is the y-intercept of ℓ?

  ○ 1

  ○ -1

  ◉ 2

  ○ 0

> ✓ **Correcto**
>
> Recall that the y-intercept of ℓ is the y-coordinate of where ℓ hits the y-axis.
>
> Since $(-1, 0) \in \ell$, the point on ℓ with $x = 0$ is obtained by running one unit from $(-1, 0)$ while rising two units.
>
> This gives $y = 2$ as the y-intercept.