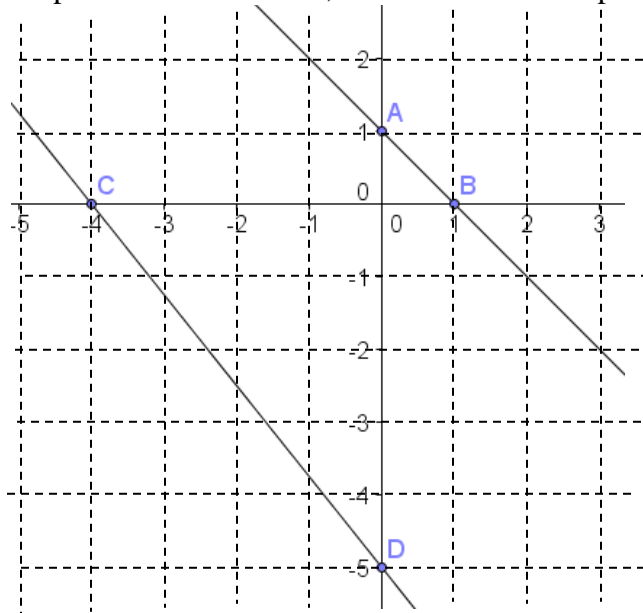


Name: _____
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School: _____
Facilitator: _____

2.04 Parallel Lines

1. Give the slope of each line. Also, state if the lines are parallel (yes or no).

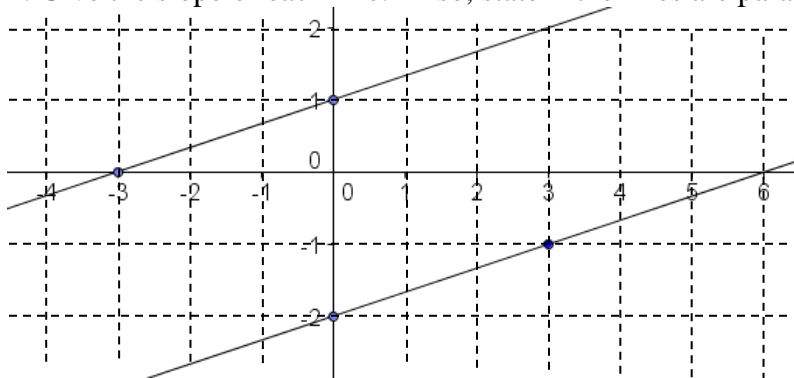


Slope of line AB:

Slope of line CD:

Are the lines parallel (yes or no):

2. Give the slope of each line. Also, state if the lines are parallel (yes or no).



Slope of line AB:

Slope of line CD:

Are the lines parallel (yes or no):

3. Give the slope of each line. Also, state if the lines are parallel (yes or no).

$$\overrightarrow{AB}: y = \frac{1}{2}x + 4 \quad \overrightarrow{CD}: y = \frac{1}{3}x - 2$$

Slope of line AB:

Slope of line CD:

Are the lines parallel (yes or no):

4. Give the slope of each line. Also, state if the lines are parallel (yes or no).

$$AB: y = -3x + 4 \quad \text{and} \quad CD: y = -3x - 2$$

Slope of line AB:

Slope of line CD:

Are the lines parallel (yes or no):

5. Give the slope of each line. Also, state if the lines are parallel (yes or no).

Hint: rewrite to slope intercept form.

$$AB: y + 4x = 1 \quad \text{and} \quad CD: y = -4x - 2$$

Slope of line AB:

Slope of line CD:

Are the lines parallel (yes or no):

6. Give the slope of each line. Also, state if the lines are parallel (yes or no).

Hint: rewrite to slope intercept form.

$$AB: 2y + 2x = 8 \quad \text{and} \quad CD: y + x = 2$$

Slope of line AB:

Slope of line CD:

Are the lines parallel (yes or no):

7. Find the equation of a line in slope intercept form that is parallel to the line below that goes through the point (6, 4).

$$y = \frac{1}{3}x - 5$$

Work:

Answer:

8. Find the equation of a line in slope intercept form that is parallel to the line $y = -2x - 3$ that goes through the point $(2, 1)$.

Work:

Answer:

9. Krista and Emily wrote an equation of a line that is parallel to the line $y = 3x - 1$ and passing through the point $(5,9)$. Is either of them correct? Explain your reasoning?

Krista
$9 = 3(5) + b$
$9 = 15 + b$
$-6 = b$
$y = 3x - 6$

Emily
$y - 9 = 3(x - 5)$
$y - 9 = 3x - 15$
$y = 3x - 24$

Answer:

Explanation:

10. Jack and Jill were working on their homework together but ended up with two different answers to the same problem. The problem asked for a new line, parallel to $y=2x+3$, and containing the point $(-2,-2)$. Who got the problem correct? Explain your reasoning?

Jack
$y - 2 = 2(x - 2)$
$y - 2 = 2x - 4$
$y = 2x - 2$

Jill
$y + 2 = 2(x + 2)$
$y + 2 = 2x + 4$
$y = 2x + 2$

Answer:

Explanation: