

Warm Up

December 4

Write the equation which has the following slope and passes through the given point.

$$y = mx + b$$

$$y - y_1 = m(x - x_1)$$

1. $m = 2; (3, 2)$

$$y - y_1 = m(x - x_1)$$

$$y - 2 = 2(x - 3)$$

$$y - 2 = 2x - 6$$

$$y = 2x - 6 + 2$$

$$y = 2x - 4$$

6. $m = \frac{1}{2}; (6, 1)$

$$y - y_1 = m(x - x_1)$$

$$(2) \quad y - 1 = \frac{1}{2}(x - 6)$$

$$2(y - 1) = 1(x - 6)$$

$$2y - 2 = x - 6$$

$$2y = x - 6 + 2$$

$$\frac{2y}{2} = \frac{x - 4}{2}$$

$$y = \frac{1}{2}x - 2$$

$$7. m = \frac{-2}{3}; (3,4)$$

$$y - y_1 = m(x - x_1)$$

$$y - 4 = \frac{-2}{3}(x - 3)$$

$$3(y - 4) = -2(x - 3)$$

$$3y - 12 = -2x + 6$$

$$3y = -2x + 6 + 12$$

$$\frac{3y}{3} = \frac{-2x}{3} + \frac{18}{3}$$

$$y = \frac{-2}{3}x + 6$$

Puzzle Worksheet - Slope Point (given both).pdf

Why Did Gyro Go Into a Bakery?



For each exercise below, find the equation of the line that has the given slope and passes through the given point. Circle the letter next to the correct equation. Then write this letter in each box at the bottom of the page that contains the number of that exercise.

① $m = 2; (3, 2)$	<input type="checkbox"/> G $y = 2x + 1$	<input type="checkbox"/> R $y = 2x - 4$
② $m = -3; (1, 4)$	<input type="checkbox"/> O $y = -3x + 7$	<input type="checkbox"/> P $y = -3x + 2$
③ $m = -5; (-1, 3)$	<input type="checkbox"/> M $y = -5x - 2$	<input type="checkbox"/> D $y = -5x + 6$
④ $m = 3; (-4, -7)$	<input type="checkbox"/> V $y = 3x + 1$	<input type="checkbox"/> E $y = 3x + 5$
⑤ $m = -1; (5, -2)$	<input type="checkbox"/> U $y = -x + 3$	<input type="checkbox"/> C $y = -x - 1$
⑥ $m = \frac{1}{2}; (6, 1)$	<input type="checkbox"/> W $y = \frac{1}{2}x - 5$	<input type="checkbox"/> H $y = \frac{1}{2}x - 2$
⑦ $m = -\frac{2}{3}; (3, 4)$	<input type="checkbox"/> A $y = -\frac{2}{3}x - 7$	<input type="checkbox"/> I $y = -\frac{2}{3}x + 6$
⑧ $m = \frac{4}{3}; (-2, 0)$	<input type="checkbox"/> K $y = \frac{4}{3}x + \frac{5}{2}$	<input type="checkbox"/> F $y = \frac{4}{3}x + \frac{8}{3}$
⑨ $m = -\frac{1}{4}; (2, 1)$	<input type="checkbox"/> J $y = -\frac{1}{4}x + \frac{3}{2}$	<input type="checkbox"/> D $y = -\frac{1}{4}x - \frac{3}{8}$
⑩ $m = 4; (-1, \frac{1}{2})$	<input type="checkbox"/> A $y = 4x - \frac{2}{3}$	<input type="checkbox"/> T $y = 4x + \frac{9}{2}$
⑪ $m = -2; (0, 0)$	<input type="checkbox"/> L $y = -2x$	<input type="checkbox"/> B $y = -2x - 2$
⑫ $m = 0; (-5, \frac{3}{4})$	<input type="checkbox"/> S $y = \frac{3}{4}$	<input type="checkbox"/> N $y = -5x$



9	5	12	10	8	2	1	10	6	4	12	3	4	11	11	2	8	7	10
---	---	----	----	---	---	---	----	---	---	----	---	---	----	----	---	---	---	----

OBJECTIVE 5-n: To find an equation of a line given the slope and one point on the line.

Puzzle Worksheet - Slope Point (given two points).pdf

What Happened When Two Fruit Companies Merged?

For each exercise below, find the equation of the line passing through the given points. Circle the two letters next to the correct equation. Then write these letters in the two boxes at the bottom of the page that contain the number of that exercise.

Answers:

- | | | |
|--------------------|------------------------------|-----------------------------|
| ① (1, 5) (2, 7) | (IS) $y = \frac{2}{3}x + 3$ | (TH) $y = \frac{1}{2}x - 4$ |
| ② (0, 1) (3, -8) | (AP) $y = -\frac{3}{2}x + 8$ | (UI) $y = -3x + 5$ |
| ③ (2, -3) (4, -2) | (ST) $y = \frac{1}{2}x - 7$ | (DE) $y = 2x + 3$ |
| ④ (2, 5) (4, 2) | (CT) $y = -3x + 1$ | (EY) $y = 4x + 7$ |
| ⑤ (-3, -5) (-1, 3) | (LO) $y = -\frac{3}{2}x - 4$ | (IL) $y = 2x + 1$ |

Answers:

- | | | |
|--------------------|---------------------------------------|---------------------------------------|
| ⑥ (3, -1) (-6, -4) | (HA) $y = \frac{1}{2}x - 1$ | (ER) $y = -\frac{3}{4}x + 4$ |
| ⑦ (4, 1) (-4, 7) | (IS) $y = \frac{1}{3}x + \frac{8}{3}$ | (EL) $y = -2x - 1$ |
| ⑧ (-1, 2) (3, 4) | (PE) $y = -x + 2$ | (EA) $y = -\frac{3}{4}x + 2$ |
| ⑨ (-1, -4) (2, 0) | (SO) $y = \frac{4}{3}x - 2$ | (AR) $y = \frac{1}{3}x - 2$ |
| ⑩ (3, -1) (-3, 5) | (MA) $y = \frac{1}{2}x + \frac{5}{2}$ | (FE) $y = \frac{4}{3}x - \frac{8}{3}$ |

3	3	5	5	8	8	1	1	4	4	7	7	9	9	2	2	10	10	6	6
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	----	---	---

HOMEWORK

Complete puzzle worksheets

Attachments

Puzzle Worksheet - Slope Point (given both).pdf

Puzzle Worksheet - Slope Point (given two points).pdf