Equation of a Line

Find an equation of a line whose slope and point passes through a line. Express the equation in slope-intercept form.

1) slope = –6 and (4, –1)

2) slope = 4 and (3, 3)

3) slope = $-\dfrac{3}{5}$ and (0, 2)

4) slope = $\dfrac{1}{2}$ and (1, 6)

5) slope = 8 and (5, –7)

6) slope = –1 and (–4, –4)

7) slope = $\dfrac{4}{7}$ and (6, 8)

8) slope = $-\dfrac{2}{3}$ and (–3, 0)

9) slope = 3 and (9, –10)

10) slope = $-\dfrac{1}{4}$ and (2, 4)

Equation of a Line

Answer key

Find an equation of a line whose slope and point passes through a line. Express the equation in slope-intercept form.

1) slope = −6 and (4, −1)

$y = -6x + 23$

2) slope = 4 and (3, 3)

$y = 4x - 9$

3) slope = $-\dfrac{3}{5}$ and (0, 2)

$y = -\dfrac{3}{5}x + 2$

4) slope = $\dfrac{1}{2}$ and (1, 6)

$y = \dfrac{1}{2}x + \dfrac{11}{2}$

5) slope = 8 and (5, −7)

$y = 8x - 47$

6) slope = −1 and (−4, −4)

$y = -x - 8$

7) slope = $\dfrac{4}{7}$ and (6, 8)

$y = \dfrac{4}{7}x + \dfrac{32}{7}$

8) slope = $-\dfrac{2}{3}$ and (−3, 0)

$y = -\dfrac{2}{3}x - 2$

9) slope = 3 and (9, −10)

$y = 3x - 37$

10) slope = $-\dfrac{1}{4}$ and (2, 4)

$y = -\dfrac{1}{4}x + \dfrac{9}{2}$