

# It's linear!

Write the equation of a line that contains the given y-intercept and slope in  $y=mx + b$  form.

1)  $m = -2, (0,5)$

2)  $m = 1, (0,9)$

3)  $m = 0, (0,-2)$

4)  $m = -7, (0,4)$

5)  $m = \text{undefined}, (0,1)$

6)  $m = -7, (0,0)$

Find the slope and y-intercept for the following equations.

7)  $y = 2x + 1$

8)  $2x - 2y = 8$

9)  $2x + 3y = 9$

10)  $4x - 2 = y$

11)  $-4x + y = -8$

12)  $3x + y = -5$

13)  $y = 7$

14)  $5x + 2y = -6$

Find the equation of the line with the given slope and point. Give answers in  $y=mx + b$  form.

15)  $m = \frac{1}{5}, (10,1)$

16)  $m = -\frac{4}{3}, (6, -4)$

17)  $m = 8, (0,4)$

18)  $m = -3, (-1,5)$

19)  $m = -3, (-1,5)$

20)  $m = 4, (1,3)$

21)  $m = 6, (2,2)$

22)  $m = \text{undefined}, (4,2)$

23)  $m = 5, (4,11)$

24)  $m = -3, (4, -5)$

Write the equation of the line passing through the given points. Give answers in  $y = mx + b$  form.

25)  $(4,0), (6, -8)$

26)  $(1,7), (-2,1)$

27)  $(-2,2), (2, -8)$

28)  $(5,5), (7,5)$

29)  $(-4,3), (2,0)$

30)  $(5, -6), (-6,5)$

31)  $(0,0), (-2,4)$

32)  $(2,5), (7,0)$

33)  $(-1, -3), (1, -2)$

34)  $(-3,3), (-1,3)$

35)  $(1,3), (9)$

36)  $(-4,1), (3, -6)$

37)  $(-4,1), (-3, -20)$

38)  $(3,2), (5,6)$

# It's linear! - solutions

Write the equation of a line that contains the given y-intercept and slope in  $y=mx + b$  form.

1)  $y = -2x + 5$

2)  $y = x + 9$

3)  $y = -2$

4)  $y = -7x + 4$

5)  $x = 1$

6)  $y = -7$

Find the slope and y-intercept for the following equations.

7)  $m = 2, (0,1)$

8)  $m = \frac{1}{4}, (0, -4)$

9)  $m = -\frac{2}{3}, (0, 4)$

10)  $m = 4, ((0, -2)$

11)  $m = 4, (0,8)$

12)  $m = -3, (0, -5)$

13)  $m = 0, (0,7)$

14)  $m = -\frac{5}{2}, (0, -3)$

Find the equation of the line with the given slope and point. Give answers in  $y=mx +b$  form.

15)  $y = \frac{1}{5}x - 1$

16)  $y = -\frac{4}{3}x + 4$

17)  $y = 8x + 4$

18)  $y = -3x$

19)  $y = -3x + 2$

20)  $y = 4x - 1$

21)  $y = 6x - 10$

22)  $x = 2$

23)  $y = 5x - 9$

24)  $y = -3x + 7$

Write the equation of the line passing through the given points. Give answers in  $y = mx + b$  form.

25)  $y = -4 + 16$

26)  $y = 2x + 5$

27)  $y = -\frac{5}{2}x - 3$

28)  $y = 5$

29)  $y = -\frac{1}{2}x + 1$

30)  $y = -x - 1$

31)  $y = -2x$

32)  $y = -x + 7$

33)  $y = \frac{1}{2}x + \frac{5}{2}$

34)  $y = -\frac{2}{3}x + 1$

35)  $y = -x + 3$

36)  $y = \frac{3}{4}x + \frac{9}{4}$

37)  $y = -x - 15$

38)  $y = 3x + 2$

39)  $y = \frac{1}{2}x + 7$

40)  $y = 2x - 4$