

Section 7.1 Extra Practice

1. What are the slope and y-intercept of each line?

a) $y = 5x - 3$ b) $y = 0.1x - 5.7$

c) $y = \frac{x}{3} + 4$ d) $y = -\frac{3}{4}x + \frac{1}{2}$

2. Sketch the graph of each line using the slope and y-intercept.

a) $y = 2x + 3$

b) $y = -2x + 3$

c) $y = \frac{1}{2}x - 4$

d) $y = -\frac{1}{2}x - 4$

3. Express each equation in slope-intercept form. Determine the slope and y-intercept of each line.

a) $4x + 5y - 20 = 0$

b) $x - 2y + 8 = 0$

c) $2x - 3y = 6$

d) $5x - y = 12$

4. Write the equation of each line in the form $y = mx + b$.

a) $m = 2$, y-intercept: $(0, -5)$

b) $m = 0$, y-intercept: $(0, 6)$

c) $m = -\frac{1}{3}$, y-intercept: $(0, 0)$

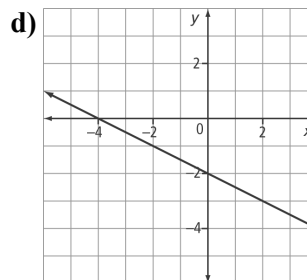
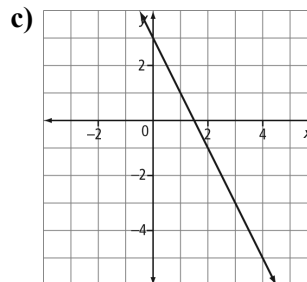
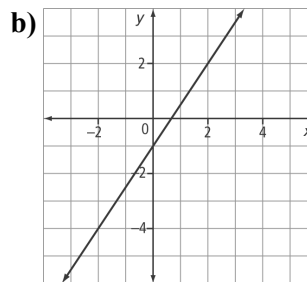
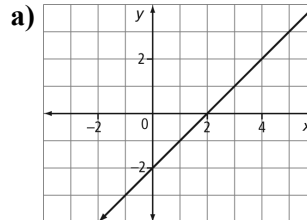
d) $m = -6$, y-intercept: $(0, 2)$

5. Write the equation of each line in the form $y = mx + b$ and in the form $Ax + By = C$, where A , B , and C are integers.

a) $m = \frac{1}{3}$, y-intercept: $(0, \frac{1}{2})$

b) $m = -\frac{2}{5}$, y-intercept: $(0, \frac{1}{4})$

6. What are the slope and y-intercept of each line? Write the equation of each line in the slope-intercept form.



7. Write the equation of each line in the form $y = mx + b$.

a) The slope is 2. The line passes through the point $(1, 4)$.

b) The y-intercept is -3 . The line passes through the point $(-2, 6)$.

c) The line passes through the points $(0, 4)$ and $(2, 6)$.