Find the slope of the line.

A) \( \frac{3}{2} \)

B) \( \frac{2}{3} \)

C) \( -\frac{2}{3} \)

D) \( -\frac{3}{2} \)
2. A) \( \frac{3}{5} \)  
B) \( \frac{3}{5} \)  
C) \( \frac{-5}{3} \)  
D) \( \frac{5}{3} \)

3. A) 1  
B) 0  
C) \(-1\)  
D) undefined
Find the slope and the $y$-intercept of the graph of the linear equation.

$y = -7x + 2$

- A) slope: $-\frac{1}{7}$; $y$-intercept: 2
- B) slope: $\frac{1}{2}$; $y$-intercept: $-7$
- C) slope: $-7$; $y$-intercept: 2
- D) slope: 2; $y$-intercept: $-7$
6. \[ y = \frac{1}{8}x + 3 \]
   A) Slope: 8; y-intercept: 3
   B) Slope: \( \frac{1}{3} \); y-intercept: \( \frac{1}{8} \)
   C) Slope: 1; y-intercept: \( \frac{1}{8} \)
   D) Slope: \( \frac{1}{8} \); y-intercept: 3

7. \[ 2x + y = 7 \]
   A) slope: 7; y-intercept: 2
   B) slope: 2; y-intercept: 7
   C) slope: \(-2\); y-intercept: 7
   D) slope: \( \frac{1}{2} \); y-intercept: 7

8. \[ 3x - 4y = 20 \]
   A) slope: \( \frac{3}{4} \); y-intercept: \(-5\)
   B) slope: \( \frac{1}{20} \); y-intercept: \( \frac{3}{4} \)
   C) slope: \( \frac{3}{4} \); y-intercept: 20
   D) slope: 3; y-intercept: \( \frac{3}{4} \)
9. \(-4y + 2x = -20\)
   
   A) slope: \(-\frac{1}{20}\); y-intercept: \(\frac{1}{2}\)
   
   B) slope: \(\frac{1}{2}\); y-intercept: \(-20\)
   
   C) slope: \(\frac{1}{2}\); y-intercept: 5
   
   D) slope: 2; y-intercept: \(\frac{1}{2}\)

10. \(y = 2x + 9\)
    
    A) slope: 9; y-intercept: 2
    
    B) slope: \(\frac{1}{9}\); y-intercept: 2
    
    C) slope: \(\frac{1}{2}\); y-intercept: 9
    
    D) slope: 2; y-intercept: 9

Write in point-slope form an equation of the line that passes through the given point and has the given slope.

11. \((4, 8); m = \frac{3}{4}\)
    
    A) \(y - 4 = \frac{3}{4} (x - 8)\)
    
    B) \(y + 8 = \frac{3}{4} (x + 4)\)
    
    C) \(y - 8 = \frac{3}{4} (x - 4)\)
    
    D) \(y + 4 = \frac{3}{4} (x + 8)\)
Name the word that matches the definition given.

12. The _________ of a linear equation is \( ax + by = c \) where \( a \) and \( b \) are not both zero.

   A) run
   B) \( y \)-intercept
   C) point-slope form
   D) \( x \)-intercept
   E) slope-intercept form
   F) standard form

13. A linear equation written in the form \( y - y_1 = m(x - x_1) \) is in _________.

   A) standard form
   B) slope-intercept form
   C) \( y \)-intercept
   D) \( x \)-intercept
   E) point-slope form
   F) run

14. A linear equation written in the form \( y = mx + b \) is in _________.

   A) \( y \)-intercept
   B) point-slope form
   C) slope-intercept form
   D) standard form
   E) \( x \)-intercept
   F) run
Graph the line with the given slope that passes through the given point.

15  slope = 2; (−1, 4)

A)  
B)  
C)  
D)  

Find the slope of the line through the given points.

16  (−7, 7), (−1, 10)

A)  \( \frac{1}{2} \)

B)  0

C)  2

D)  undefined
Graph the linear function using slope-intercept form.

\[ y = x - 8 \]

A) 

B) 

C) 

D)
$$y = -\frac{1}{3}x - 1$$
Which linear equation represents the graph?

19. A) $y = -3x - 2$
   B) $y = 3x + 2$
   C) $y = \frac{1}{3}x + 2$
   D) $y = \frac{1}{3}x - 2$

20. A) $y = -\frac{1}{3}x + 3$
   B) $y = 3x - 2$
   C) $y = \frac{1}{3}x + 3$
   D) $y = -3x - 2$
21. Match the equation with its graph.

\[ 8x - 8y = 16 \]

A) 

B) 

C) 

D)
Write the linear equation in slope-intercept form.

22. \( \frac{1}{3}x + y = -2 \)

A) \( y = -\frac{1}{3}x + 2 \)

B) \( y = -\frac{1}{3}x - 2 \)

C) \( y = -3x - 2 \)

D) \( x = -3y + \frac{2}{3} \)

23. \( 5x + y = -17 \)

A) \( x = -\frac{1}{5}y - \frac{17}{5} \)

B) \( y = 5x - 17 \)

C) \( y = -5x + 17 \)

D) \( y = -5x - 17 \)
Write an equation of the line in slope-intercept form.

![Graph with points (0, -3) and (5, 1)]

A) \( y = -\frac{4}{5}x - 3 \)

B) \( y = -\frac{4}{5}x + 3 \)

C) \( y = -\frac{5}{4}x - 3 \)

D) \( y = -\frac{5}{4}x + 3 \)

![Graph with points (-3, 2) and (0, 5)]

A) \( y = -x + 5 \)

B) \( y = x - 5 \)

C) \( y = -x - 5 \)

D) \( y = x + 5 \)
26. The equation of the line passing through the points (-2, 1) and (0, 0) is:

A) \( y = -\frac{1}{3} x \)

B) \( y = -\frac{1}{3} x + 1 \)

C) \( y = -3x + 1 \)

D) \( y = -3x \)

27. The equation of the line passing through the points (0, 2) and (3, 3) is:

A) \( y = 3x + 2 \)

B) \( y = \frac{1}{3} x \)

C) \( y = 3x \)

D) \( y = \frac{1}{3} x + 2 \)
Which chart shows proportional relationship?

A) \[
\begin{array}{c|c|c|c|c}
\hline
x & 2 & 4 & 6 & 8 \\
\hline
y & -3 & 1 & 5 & 9 \\
\hline
\end{array}
\]

B) \[
\begin{array}{c|c|c|c}
\hline
x & 2 & 5 & 8 \\
\hline
y & 4 & 8 & 13 \\
\hline
\end{array}
\]

C) \[
\begin{array}{c|c|c|c}
\hline
x & 1 & 3 & 5 & 7 \\
\hline
y & 2 & 10 & 18 & 26 \\
\hline
\end{array}
\]

D) \[
\begin{array}{c|c|c|c}
\hline
x & 1 & 3 & 5 & 7 \\
\hline
y & 4 & 12 & 20 & 28 \\
\hline
\end{array}
\]

Use point-slope form to write an equation of the line with the given slope that passes through the given point.

\( m = 2 \)

A) \( y - 0 = 2(x + 2) \)

B) \( y - 2 = 2(x + 0) \)

C) \( y + 2 = 2(x - 0) \)

D) \( y - 0 = 2(x - 2) \)
\[ m = -2 \]

A) \( y - 4 = -2(x + 2) \)
B) \( y - 2 = -2(x + 4) \)
C) \( y + 2 = -2(x - 4) \)
D) \( y + 4 = -2(x - 2) \)

Find the x- and y-intercepts of the graph of the equation.

\[ y = 3x + 1 \]

A) x-intercept is 1 y-intercept is 3
B) x-intercept is \(-\frac{1}{3}\) y-intercept is 1
C) x-intercept is 3 y-intercept is -3
D) x-intercept is -3 y-intercept is 3
Find the x- and y-intercepts of the graph of the equation.

\[3x - 4y = 12\]

A) x-intercept is 3  y-intercept is -4  
B) x-intercept is -6  y-intercept is 8  
C) x-intercept is 8  y-intercept is -6  
D) x-intercept is 4  y-intercept is -3

The points in the table lie on a line. Find the slope of the line.

<table>
<thead>
<tr>
<th>x</th>
<th>1</th>
<th>3</th>
<th>5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>4</td>
<td>12</td>
<td>20</td>
<td>28</td>
</tr>
</tbody>
</table>

A) \(-\frac{1}{4}\)  B) 4  C) -4  D) \(\frac{1}{4}\)

Which lines are parallel?

A) Line 2 & 3  C) Line 2 & 4  E) Line 1 & 3  
B) Line 1 & 2  D) Line 3 & 4  F) Line 1 & 4
35. Which lines are perpendicular?

A) Line 1 & 3  C) Line 2 & 4  E) Line 3 & 4
B) Line 2 & 3  D) Line 1 & 2  F) Line 1 & 4

36. Which graph does not show proportional relationship?

A)  
B)  
C)  
D)  

A) Two-Person Lift  C) Altitude Change
B) Turnpike Travel  D) Helicopter