Slope Exercises

1. Determine the slope of the line whose equation is \( y = \frac{2}{3}x - 4 \).

2. Determine the slope of the line whose equation is \( 3x - 5y = 6 \).

3. Determine the slope of the line whose equation is \( -4x - 4y = 0 \).

4. Determine the slope of a line that is perpendicular to the line whose equation is \( y = \frac{2}{3}x + 5 \).

5. Determine the slope of a line that is parallel to the line whose equation is \( -2x + y = 4 \).

6. Determine the slope of a line that is perpendicular to the line whose equation is \( 5x - 2y = 5 \).

7. Determine the slope of a line that is parallel to the line whose equation is \( y = mx + b \).

8. Determine the slope of a line that is perpendicular to the line whose equation is \( y = mx + b \).

9. Determine the slope and y intercept of the line whose equation is \( -5x - 6y = 6 \).

10. Determine the slope and y intercept of the line whose equation is \( 2x - 5y - 4 = 0 \).
Answers

1. \( \frac{2}{3} \)

2. \( \frac{3}{5} \)

3. \(-1\)

4. \( -\frac{3}{2} \)

5. \( 2 \)

6. \( -\frac{2}{5} \)

7. \( m \)

8. \( -\frac{1}{m} \)

9. slope = \( -\frac{5}{6} \) and y intercept = \(-1\)

10. slope = \( \frac{2}{5} \) and y intercept = \(-\frac{4}{5} \)