

1. Find the slope and the y-intercept of the line.
 - (a) $11x - 3y = 54$
 - (b) $y = -6$
 - (c) $-22x = 52 + 12y$
 - (d) $44x - 30y = 712$
 - (e) $13x + 3y = 57$
 - (f) $y = -\frac{3}{5}x - \frac{4}{5}$
2. Write an equation of the line that contains the given point and has the given slope.
 - (a) $(4, -5)$, slope = -4
 - (b) $(-12, -10)$, slope = $5\frac{1}{2}$
 - (c) $(44, -10)$, slope = $-3\frac{3}{5}$
 - (d) $(0, 1)$, slope = 2
 - (e) $(1, 9)$, slope = $\frac{4}{5}$
 - (f) $(-7, 7)$, slope = $-5\frac{3}{4}$
3. Write an equation of the line that passes through the given two points.
 - (a) $(3, -4)$, $(6, 2)$
 - (b) $(-2, 7)$, $(8, 12)$
 - (c) $(0, 5)$, $(20, 25)$
 - (d) $(-3, -7)$, $(27, -52)$
 - (e) $(44, 13)$, $(112, 166)$
 - (f) $(2, 7)$, $(26, 143)$
4. Write an equation of the line.
 - (a) y-intercept = -4 , x-intercept = -2
 - (b) y-intercept = -35 , x-intercept = -7
 - (c) y-intercept = 12 , x-intercept = -4
 - (d) y-intercept = $-15\frac{1}{4}$, x-intercept = $-8\frac{5}{7}$
 - (e) y-intercept = $-\frac{1}{3}$, x-intercept = $-\frac{1}{2}$
 - (f) y-intercept = $210\frac{1}{2}$, x-intercept = $46\frac{7}{9}$

5. Solve the following equations
- (a) $2(5x + 3) - 6(x - 4) = 48$
 - (b) $2x - 7(3 - 2x) = 4(x + 8)$
 - (c) $\frac{2x}{3} + 16 = 10 - x$
 - (d) $\frac{x}{3} - \frac{x}{6} = 8$
 - (e) $a + 9 + 4(a - 2) = -1$
 - (f) $\frac{3x - 2}{2x + 3} = \frac{2}{5}$
6. Solve each system of equations using the substitution method
- (a) $13x + 7y = -378$ and $x - 4y = 39$
 - (b) $17x - y = -139$ and $10x + 12y = -472$
 - (c) $10x + 9y = -453$ and $2x - 17y = 41$
 - (d) $4x + 3y = 84$ and $8x + 3y = 204$
7. Solve each system of equations using the elimination method
- (a) $y = 4x - 136$ and $3x - 8y = 189$
 - (b) $18x + 11y = 522$ and $10x = 112 - 16y$
 - (c) $19x + 3y = 459$ and $22x + 3y = 513$
 - (d) $\frac{12x + y}{2} = 175$ and $x = 65 + 3\frac{1}{2}y$
8. Graph each linear equation
- (a) $y = -2x + 3$
 - (b) $3y = 2x + 6$
 - (c) $3x - 2y = 5$
9. Plot the graphs of $y = x + 2$ and $y = 4x - 7$ on the same diagram and use them to solve the equation $x + 2 = 4x - 7$