

## Practice: Get Ready

### Algebraic Expressions

1. Simplify by collecting like terms.
  - a)  $4x + 2 - 3x + 16$
  - b)  $-3t - 10 + 14 - 2t$
  - c)  $8 + 6k - 12 - 9k$
  - d)  $5m + 12m - 2 - 2$
  - e)  $9y - 17 - 20y + 5$
  - f)  $8 - 8 - 13n + 25n$

### Manipulate and Solve Equations

2. Rearrange each equation to isolate  $y$ .
  - a)  $2x + y = -8$
  - b)  $x + 3y = 5$
  - c)  $10x - 4y = 4$
  - d)  $-3x - y = 9$
  - e)  $4x + 5y = -2$
  - f)  $-x + 6y + 7 = 0$
3. For each equation, find the value of  $y$  when  $x = 2$ 
  - a)  $y = 5x - 8$
  - b)  $y = -3x + 17$
  - c)  $x - y = -14$
  - d)  $2x + y = 9$
  - e)  $-7x + 3y = 10$
  - f)  $6x - 2y = 7$
4. For each equation, find the value of  $x$  when  $y = -3$ 
  - a)  $y = x - 12$
  - b)  $y = -4x + 13$
  - c)  $x + 8y = -5$
  - d)  $3x - 10y = 3$
  - e)  $-2x + 6y = 2$
  - f)  $-4x - 2y - 14 = 0$

### Graph Linear Relations

5. Graph each linear relation.
  - a)  $y = x + 3$
  - b)  $y = 2x - 9$
  - c)  $y = -x - 7$
  - d)  $y = -3x + 6$
  - e)  $y = 4x + 1$
  - f)  $y = -6x - 2$
6. Rewrite each equation in slope  $y$ -intercept form.
  - a)  $2x - y = 10$
  - b)  $-3x + y = 4$
  - c)  $6x + y = -7$
  - d)  $x - y = 3$
  - e)  $5x - y = -5$
  - f)  $x + y = 6$

### Translate Words to Algebra

7. Write an equation to represent each situation.
  - a) Jill earns \$9.25/h. Last week she earned \$74.
  - b) Arman paid \$205 to rent a car for the weekend. The rental company charges \$100 plus \$0.25/km
  - c) The \$125 pair of running shoes costs \$142.50 after the sales taxes is included.
  - d) The phone company charges 20¢ per minute for long distance calls. Michael's phone bill shows \$58 in long-distance calls.
  - e) The area of the circle is  $24 \text{ cm}^2$ .