Check Up

1. State a preferable method for solving each of the following systems. Justify your choice.

   a. $x = 2y + 1$

      $y = x - 6$

   b. $y = 5.1x - 7$

      $y = 3.9x + 2.2$

   c. $3x + 5y - 1 = 0$

      $6x + y + 13 = 0$

2. Solve $y = 3x - 4$ and $y = 2x + 2$ using an algebraic method (substitution or elimination). Verify your work by graphing with technology.

☑ Compare your answers.

1. State a preferable method for solving each of the following systems. Justify your choice.

   Choices and explanations will vary. Samples are shown.

   a. $x = 2y + 1$

      $y = x - 6$

      Substitution will work well with this system because x, in the first equation, is already isolated.

   b. $y = 5.1x - 7$

      $y = 3.9x + 2.2$

      Graphing using technology will work well for this system because both equations are written in slope-intercept form, which is easy to enter into a graphing calculator.

   c. $3x + 5y - 1 = 0$

      $6x + y + 13 = 0$

      Elimination will work well for this system because the equations are in the same format, and multiplying the first equation by 2 will make the x-coefficients the same.

2. Solve $y = 3x - 4$ and $y = 2x + 2$ using an algebraic method (substitution or elimination). Verify the solution graphically with technology.

$$y = 3x - 4$$
$$2x + 2 = 3x - 4$$
$$6 = x$$

$$y = 3x - 4$$
$$y = 3(6) - 4$$
$$y = 14$$

The solution is (6,14).

Verify the solution.