Unit 1 Review - Functions and Inverses NAME Key

Solve Systems Algebraically

Solve each system of equations. Remember to express the answer as a point.

1. $4x + y = 2$
   $x - y = 3$

   (1, -2)

2. $4x - y = 20$
   $-2x - 2y = 10$

   (3, -8)

3. $y = 5x + 4$
   $10x - 2y = -8$

   Infinitely many Solutions

Solve Systems Graphically

Solve each system of equations by solving for y (if needed) and graphing them in the calculator.

4. $y = 3x - 4$
   $y = -\frac{1}{2}x + 3$

   (2.1, 2.3)

5. $y = 2x^2 - 5x - 3$
   $8x + 2y = -16$

   No Solution

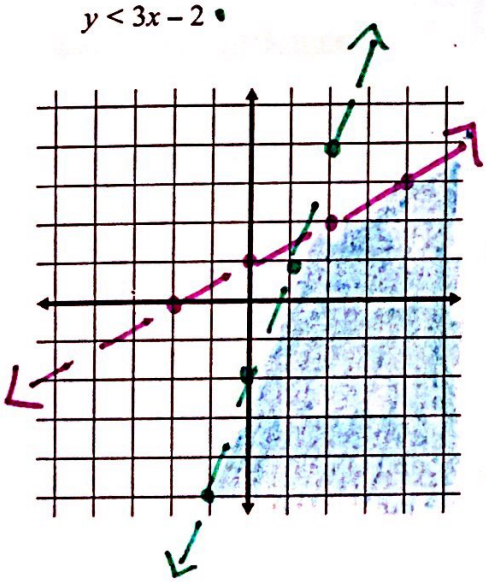
6. $y = x^2$
   $3x - y = 2$

   (1, 1) and (2, 4)

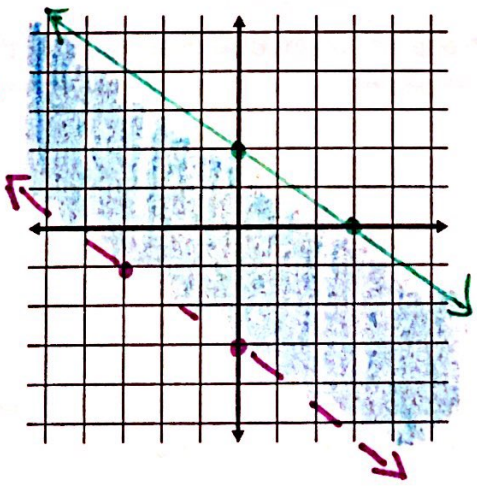
Solve Systems of Inequalities

Solve each system of inequalities. Pay attention to whether the inequalities would have solid or dotted lines as well as where the shading belongs.

7. $y < \frac{1}{2}x + 1$ •
   $y < 3x - 2$ •



8. $-3y < 2x + 9$ •
   $2x + 3y \leq 6$ •



9. $x > 1$
   $y \leq -3$