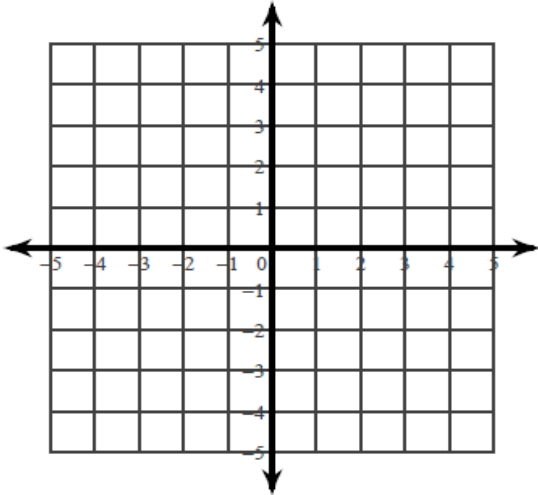# Systems of Equations … Elimination

Solve each system by graphing.

1) $y = -\dfrac{1}{4}x - 4$

$y = \dfrac{5}{4}x + 2$

2) $y = 2x + 3$

$y = -4x - 3$

3) $7x - y = 3$

$x - y = -3$

4) $3x + 4y = 4$

$3x + 4y = -16$

Solve each system by substitution.

5) $x + 8y = -15$
   $7x + 8y = -9$

6) $-5x - 7y = 11$
   $x - 2y = -9$

7) $y = -7x + 1$
   $5x + 4y = -19$

8) $-9x - 3y = -2$
   $y = -3x - 4$

Solve each system by elimination.

9) $6x + 2y = -6$
   $7x + 4y = 8$

10) $5x + 3y = 15$
    $10x + 6y = 20$

11) $-6x - 9y = 0$
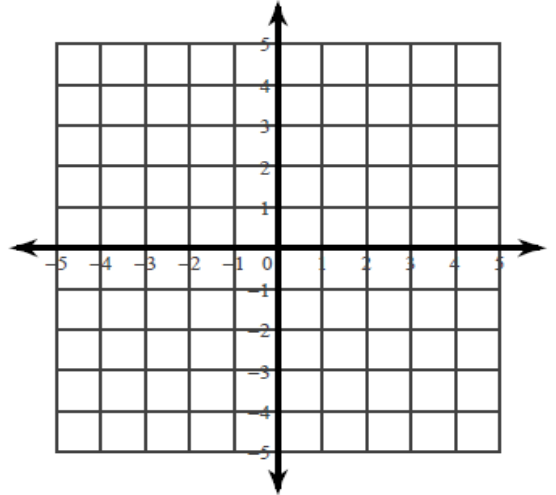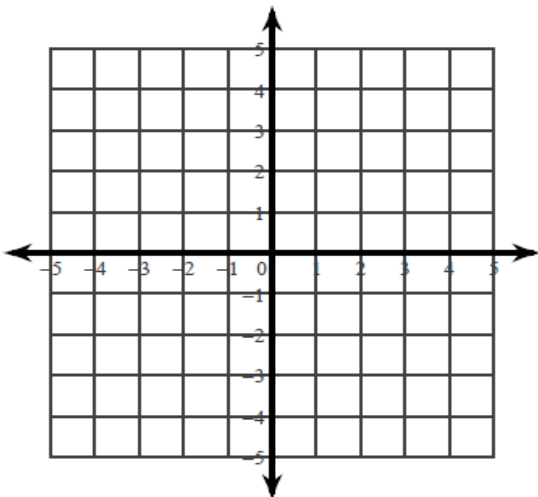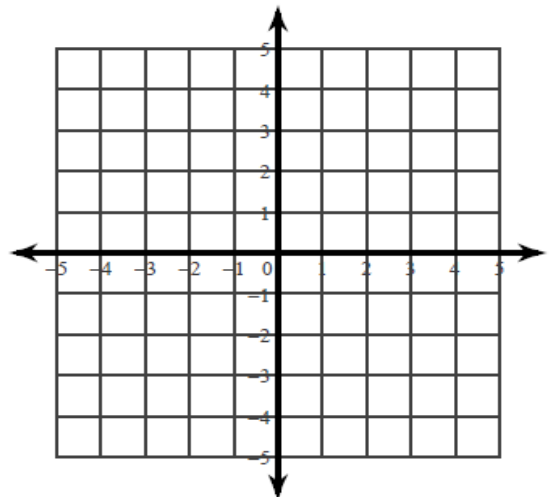 $-24x = 36y$

12) $-3 - 3y = 12x$
    $-5 - y = 2x$

Systems of Equations ... Elimination

Answers

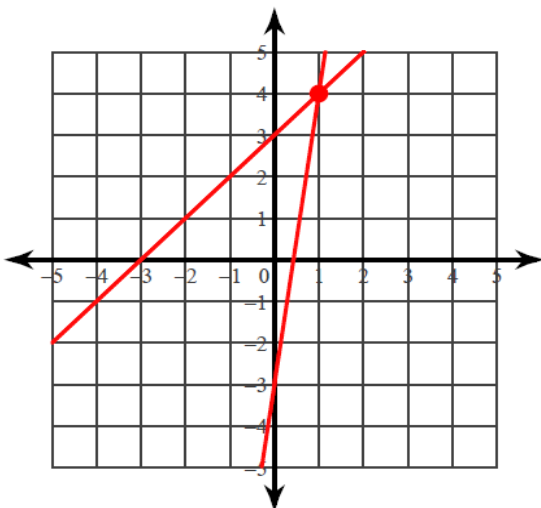1) $y = -\dfrac{1}{4}x - 4$

   $y = \dfrac{5}{4}x + 2$

2) $y = 2x + 3$

   $y = -4x - 3$
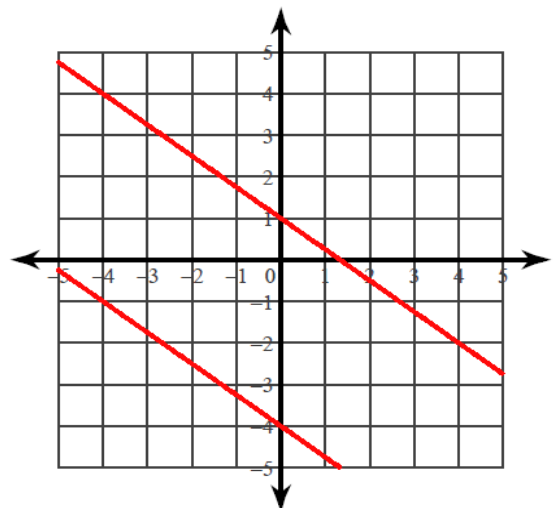

$(-4, -3)$

$(-1, 1)$

3) $7x - y = 3$

   $x - y = -3$

4) $3x + 4y = 4$

   $3x + 4y = -16$

$(1, 4)$
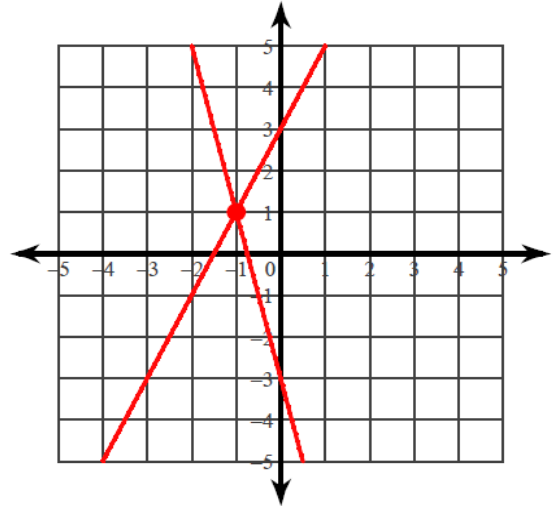
No solution

Systems of Equations ... Elimination

Solve each system by substitution.

5) $x + 8y = -15$
   $7x + 8y = -9$

   $(1, -2)$

6) $-5x - 7y = 11$
   $x - 2y = -9$

   $(-5, 2)$

7) $y = -7x + 1$
   $5x + 4y = -19$

   $(1, -6)$

8) $-9x - 3y = -2$
   $y = -3x - 4$

   No solution

Solve each system by elimination.

9) $6x + 2y = -6$
   $7x + 4y = 8$

   $(-4, 9)$

10) $5x + 3y = 15$
    $10x + 6y = 20$

    No solution

11) $-6x - 9y = 0$
    $-24x = 36y$

    Infinite number of solutions

12) $-3 - 3y = 12x$
    $-5 - y = 2x$

    $(2, -9)$