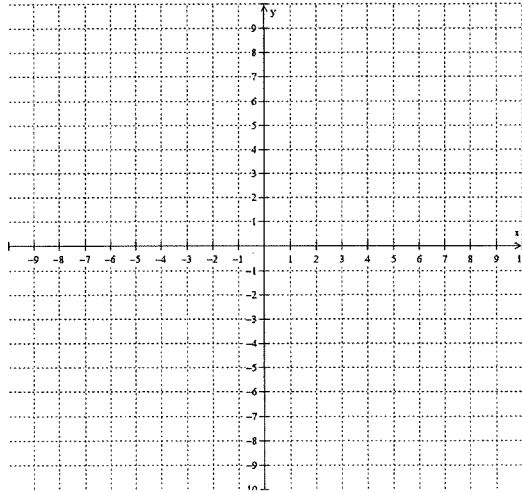


HW 12: Solving Systems of Linear Equations and Identifying the Number of Solutions

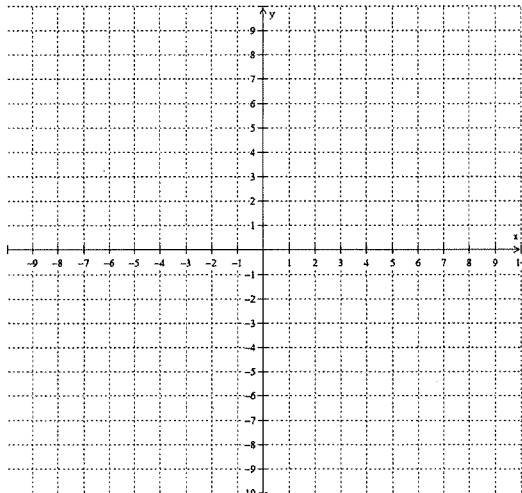
1. Graph: $y = 5x + 1$
 $y = 5x - 1$



Solve with Substitution: $y = 5x + 1$
 $y = 5x - 1$

How many solutions does the system have? How do you know?

2. Graph: $-x - 4y = 12$
 $y - 4 = -2x$



Solve with Substitution: $-x - 4y = 12$
 $y - 4 = -2x$

How many solutions does the system have? How do you know?

CRYPTIC QUIZ

1. Why did the little girl paint spots on the staircase?

Answer:

14 7 4 3 11 14 11 14 15 4 1 9 2 15 15 4 12

2. What do you call a thirty-six-inch two-by-four?

Answer:

11 10 6 13 8 4 12 5 11 12 9

Solve each equation for y in terms of x . Find your answer below and notice the letter next to it. Each time the exercise number appears in the code, write this letter above it.

① $x + y = 5$

② $-3x + y = -2$

③ $x - y = 7$

④ $-4x - y = 1$

⑤ $3x - y = -10$

Answers:

Ⓔ $y = -4x - 1$

Ⓕ $y = 3x - 1$

Ⓟ $y = -x + 5$

Ⓦ $y = x - 7$

Ⓨ $y = 3x + 10$

Ⓞ $y = 3x - 2$

⑥ $-x + 2y = 6$

⑦ $x - 2y = 2$

⑧ $-2x + 3y = -12$

⑨ $5x + 2y = 1$

⑩ $4x - 3y = -2$

Answers:

Ⓓ $y = -\frac{5}{2}x + \frac{1}{2}$

Ⓤ $y = \frac{1}{2}x + 3$

Ⓛ $y = \frac{4}{3}x + \frac{2}{3}$

Ⓖ $y = \frac{3}{4}x - 4$

ⓗ $y = \frac{1}{2}x - 1$

Ⓑ $y = \frac{2}{3}x - 4$

⑪ $3x + 2y - 6 = 0$

⑫ $x - 4y + 2 = 0$

⑬ $-2x - 6y = 0$

⑭ $8y - 3x = -6$

⑮ $7x = 2y$

Answers:

Ⓝ $y = \frac{4}{3}x + \frac{1}{4}$

Ⓢ $y = \frac{3}{8}x - \frac{3}{4}$

Ⓡ $y = \frac{1}{4}x + \frac{1}{2}$

Ⓐ $y = -\frac{3}{2}x + 3$

Ⓣ $y = \frac{7}{2}x$

Ⓜ $y = -\frac{1}{3}x$