Systems of Equations: Lesson 4a

Strange Solutions: Notes

Name: Answers

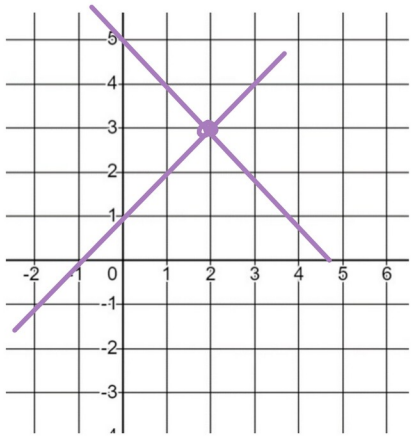
MATH ALL

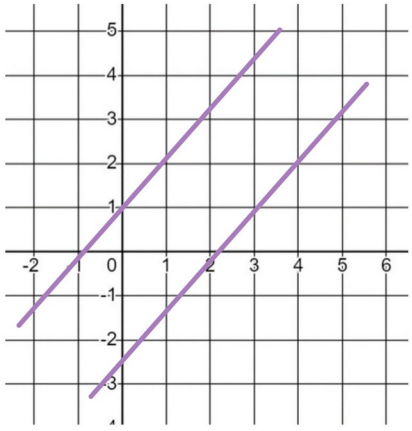
3 ways we can solve linear systems of equations:

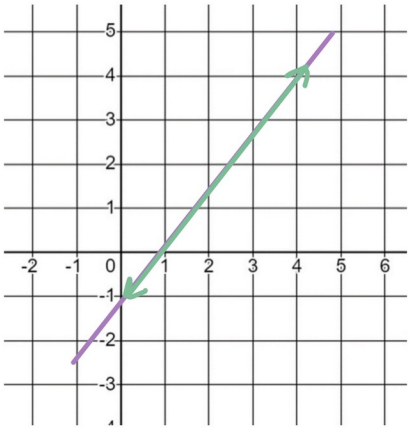
graphing, substitution, elimination

3 things that can happen when we solve linear systems:

1: 2 lines intersect 2: parallel lines 3: same lines







The answer is a	0=3	0=0
point	"no solutions"	"all real numbers" infinite solutions

Solve:

$3x-4y=7$

$y=\frac{3}{4}x-\frac{7}{4}$

Same lines

infinite solutions

"all real numbers"

$3x-4\left(\frac{3}{4}x-\frac{7}{4}\right)=7$

$3x-3x+7=7$

$0+7=7$

$7=7$

Solve:

$5\left(\frac{4}{5}x-\frac{3}{5}y=3.6\right)$ → $-2(4x - 3y = 18)$

$8x = 6y + 72$ → $8x - 6y = 72$

$-6y \quad -6y$

$-8x + 6y = -36$

$0 \neq 36$ ☹

parallel lines

"no solutions"