

Geometry 10/3

Warm Up IXL

8th Grade

AA.1

I can solve a system of linear equations using substitution

Ex. 1 Solve the system using substitution.

$$2y + x = 8$$

$$y = -4x + 4$$

$$2(-4x + 4) + x = 8$$

$$-8x + 8 + x = 8$$

$$-7x + 8 = 8$$

$$\frac{-7x + 8}{-7} = \frac{8}{-7}$$

$$\frac{-7x}{-7} = \frac{0}{-7} \quad x = 0$$

$$y = -4(0) + 4$$

$$y = 0 + 4$$

$$y = 4$$

$$(0, 4)$$

I can solve a system of linear equations using substitution

Ex. 2 Solve the system using substitution.

$$y = -5x - 33$$

$$2x = 5 - 3y$$

$$2x = 5 - 3(-5x - 33)$$

$$2x = 5 + 15x + 99$$

$$-13x = 5 + 99$$

$$\frac{-13x}{-13} = \frac{104}{-13}$$

$$x = -8$$

$$y = -5(-8) - 33$$

$$y = 40 - 33$$

$$y = 7$$

$$(-8, 7)$$

I can solve a system of linear equations using substitution

Ex. 3 Solve the system using substitution.

$$x = 5y - 40$$

$$x = y - 16$$

$$5y - 40 = y - 16$$

$$4y - 40 = -16$$

$$4y = 24$$

$$y = 6$$

$$x = 6 - 16$$

$$x = -10$$

$$(-10, 6)$$

I can solve a system of linear equations using substitution

Ex. 3 Solve the system using substitution.

$$y - 4x = 39$$

$$y = -3x - 31$$

$$-3x - 31 - 4x = 39$$

$$-7x - 31 = 39$$

$$+31 \quad +31$$

$$\frac{-7x = 70}{-7 \quad -7}$$

$$x = -10$$

$$y = -3(-10) - 31$$

$$y = 30 - 31$$

$$y = -1$$

$$(-10, -1)$$

I can solve a system of linear equations using substitution

ICA Wkst
odds or evens
+ IXL 8th Grade
AA.8

