

Warm up-

Solve the following equations.

$$1. \quad 3(4x - 6) = 6(2x - 3)$$

$$\cancel{12x} - 18 = \cancel{12x} - 18$$

$$\cancel{-12x} \quad \cancel{-12x}$$

$$\hline -18 = -18$$

$$2. \quad 4x - 1 = 2(3x + 1)$$

$$4x - 1 = 6x + 2$$

$$\cancel{+1} \quad \cancel{+1}$$

$$\hline 4x = 6x + 3$$

$$\cancel{-6x} \quad \cancel{-6x}$$

$$\hline -2x = 3$$

$$\underline{-2} \quad \underline{-2}$$

$$x = -\frac{3}{2}$$

Section 7.1
Solving Systems by Graphing

ABCDEFGHIJKLMNOPQRSTUVWXYZ

System of Equations

Two or more equations using the same variables.

Solution of a System of Linear Equations???

Any ordered pair that makes all the equations of that system true.

No Solution???

Infinitely Many Solutions?

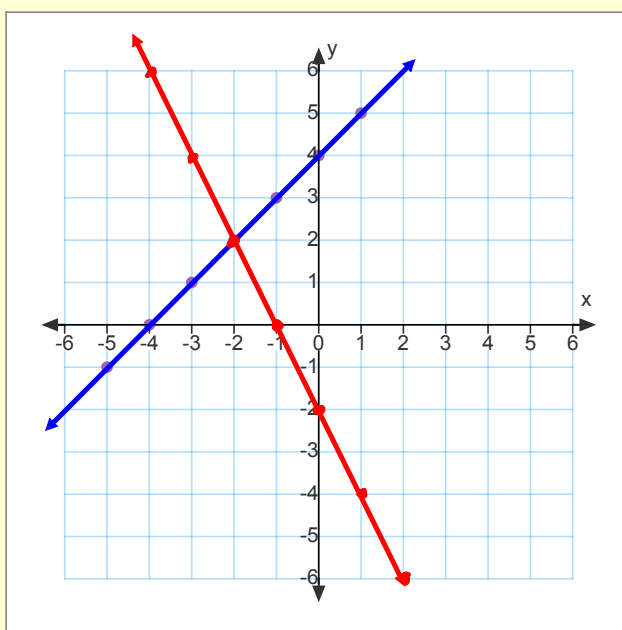
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Graph the following lines to determine the solution of the system.

$$y = x + 4$$

$$y = -2x - 2$$

$$(-2, 2)$$



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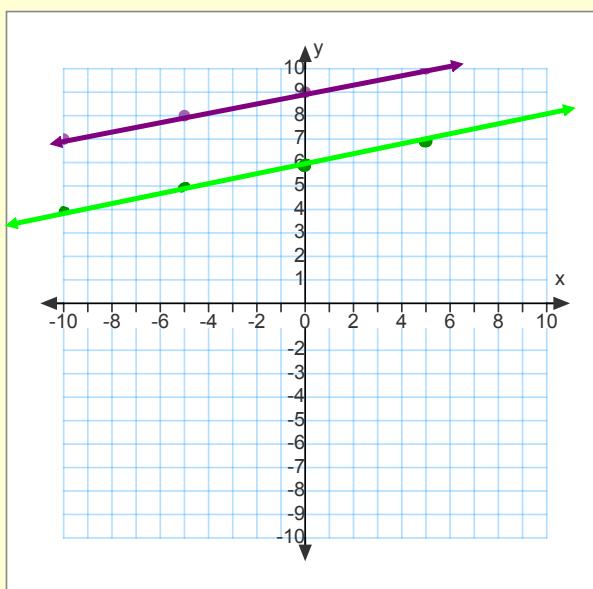
Solve by graphing.

$$y = \frac{1}{5}x + 9$$

$$5y = x + 30$$

$$y = \frac{1}{5}x + 6$$

N.S.



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Solve by graphing.

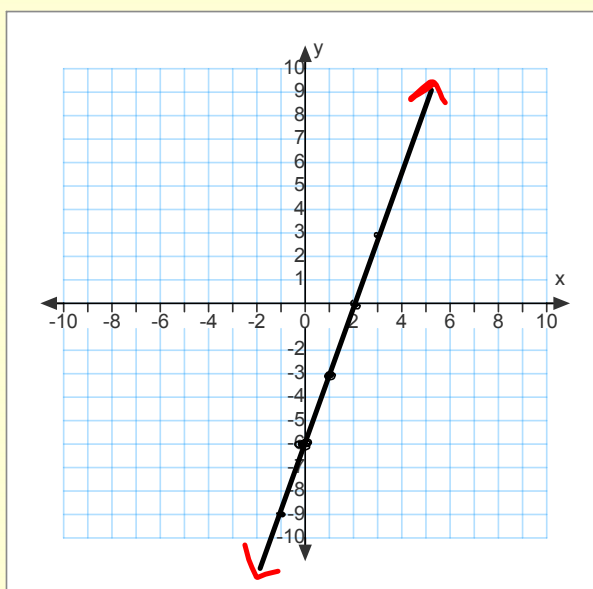
$$9x - 3y = 18$$

$$y = 3x - 6$$

$$9x - 3y = 18$$

$$\frac{-3y}{-3} = \frac{-9x + 18}{-3}$$

$$y = 3x - 6$$



∞ many

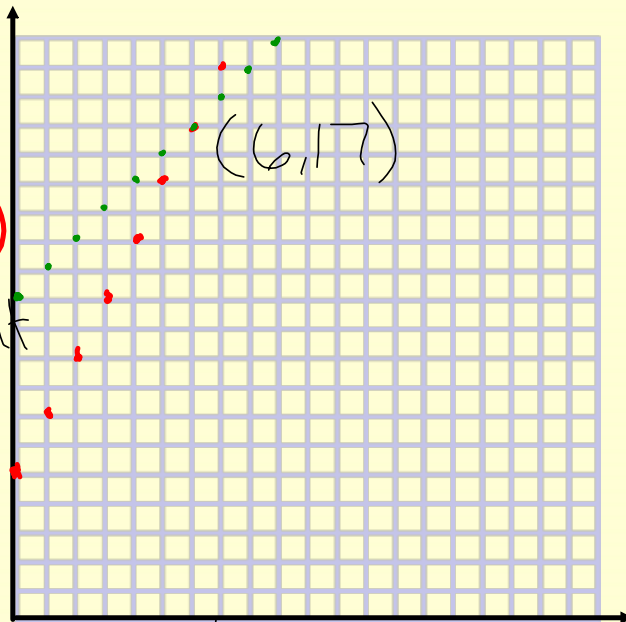
You are testing two fertilizers on bamboo plants C and D. Plant C is 5 cm tall and growing at a rate of 2 cm/day. Plant D is 11 cm tall and growing at a rate of 1 cm/day. After how many days will the bamboo plants be the same height? What will their heights be?

① Write equations

$$H_c = 2d + 5 \quad (6, 17)$$

$$H_D = d + 11$$

height
cm



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Homework:

p. 377 (1 - 23 odd)

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