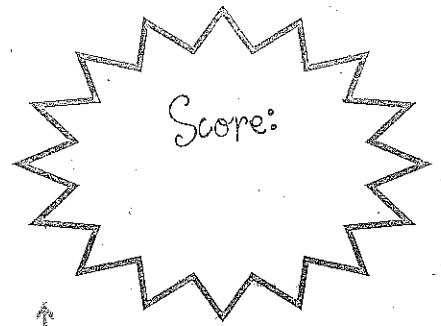


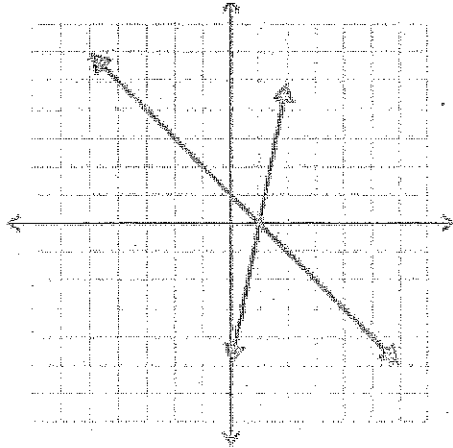
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# Quiz: Solving Systems by Graphing and Interpreting the Solution

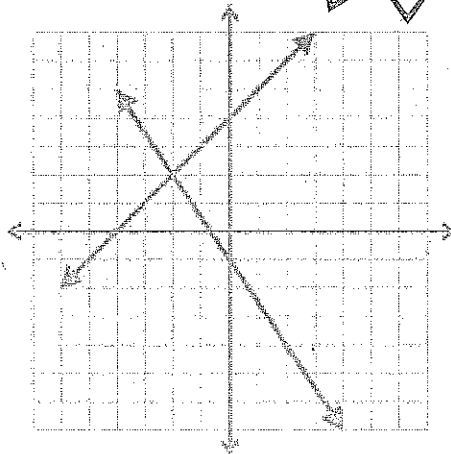


Find the solution to each of the following systems:

1



2



Solution: (1, 0)

Solution: (-2, 2)

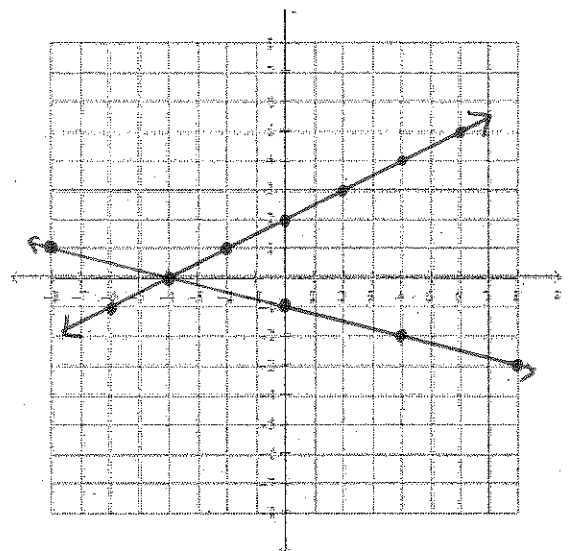
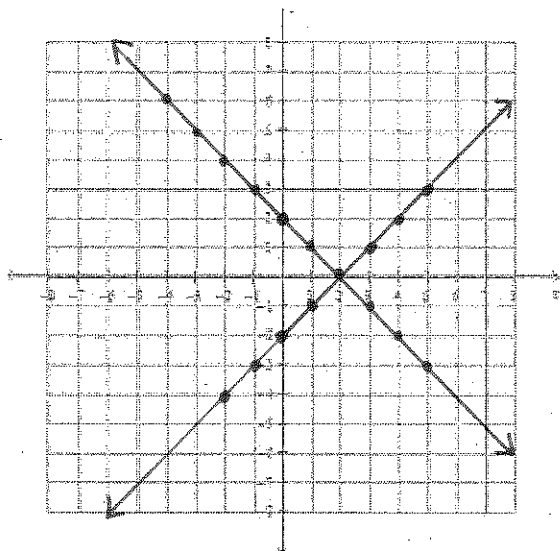
Graph the systems below and then write the solution.

3.

$$\begin{cases} y = -x + 2 \\ y = x - 2 \end{cases}$$

4.

$$\begin{cases} y = -\left(\frac{1}{4}\right)x - 1 \\ y = \left(\frac{1}{2}\right)x + 2 \end{cases}$$



Solution: (2, 0)

Solution: (-4, 0)

Convert each of the following linear equations from standard form to slope intercept form.

5.

$$\begin{aligned} x + 3y &= -3 \\ -x & \quad -x \\ \frac{3y}{3} &= \frac{-x-3}{3} \\ y &= -\frac{1}{3}x - 1 \end{aligned}$$

Slope Intercept form:

$$y = -\frac{1}{3}x - 1 \text{ or } y = -1 - \frac{1}{3}x$$

6.

$$\begin{aligned} 10x - 8y &= 24 \\ -10x & \quad -10x \\ \frac{-8y}{-8} &= \frac{-10x+24}{-8} \\ y &= \frac{5}{4}x - 3 \end{aligned}$$

Slope Intercept form:

$$y = \frac{5}{4}x - 3 \text{ or } y = -3 + \frac{5}{4}x$$

7. Mr. Holman is selling BHL Spirit Wear as a fundraiser for the Washington trip. The hats are \$10 each and the sweatshirts are \$20 each. Fill in the table below for the different possible combinations of hats and sweatshirts that could have been sold to make a total profit of \$600.

Hats	Sweatshirts	Profit
10	25	\$600
0	30	\$600
60	0	\$600
30	15	\$600
4	28	\$600

8. Write an equation for the total profit (p) for selling (h) hats and (s) sweatshirts.

Equation:  $P = 10h + 20s$

9. FOR EACH SOLUTION BELOW, DETERMINE IF IT IS OR IS NOT A SOLUTION TO THE EQUATION:  $y = 4x - 5$ . SHOW YOUR WORK AND CIRCLE YOUR ANSWER FOR EACH.

Is (0, -5) a solution?	Is (1, 2) a solution?	Is (2, 3) a solution?
Work: $y = 4x - 5$ $-5 = 4(0) - 5$ $-5 = -5 \checkmark$	Work: $y = 4x - 5$ $2 = 4(1) - 5$ $2 = 4 - 5$ $2 \neq -1$	Work: $y = 4x - 5$ $3 = 4(2) - 5$ $3 = 8 - 5$ $3 = 3 \checkmark$
Circle one: yes or no	Circle one: yes or no	Circle one: yes or no