

HW 9 No Calculators Allowed

Algebra 2

3.6 - Solving Systems by Graphing

Name: _____

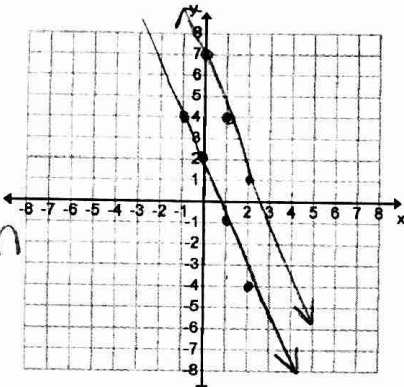
Period: _____

Graph each system to find the solution.

1. $y = -3x + 2$
 $6x + 2y = 7$

$y = -3x + 7$

no solution



2. $x - 6y = 12$
 $2x - 3y = -3$

$-6y = -x + 12$
 -6

$y = \frac{1}{6}x - 2$

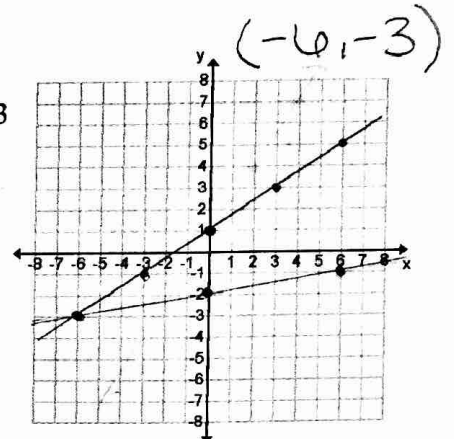
$-3y = -2x - 3$
 -3

$y = \frac{2}{3}x + 1$

$y = 3x + 2$

4. $y = -\frac{3}{2}x + 5$

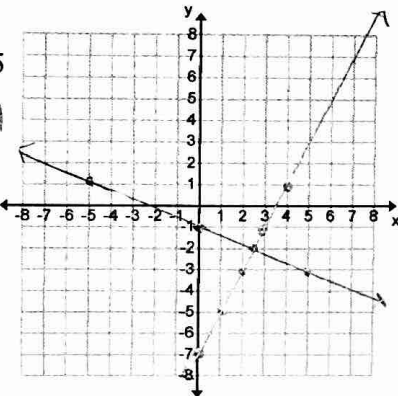
$(\frac{2}{3}, 4)$



3. $y = 2x - 7$
 $2x + 5y = -5$

$y = -\frac{2}{5}x - 1$

$(\frac{5}{2}, -2)$

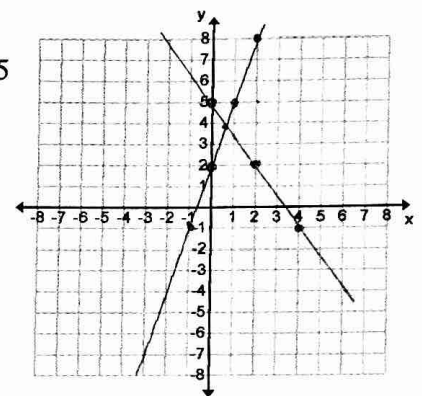


$2x - 3y = -6$

6. $-\frac{2}{3}x + y = 2$

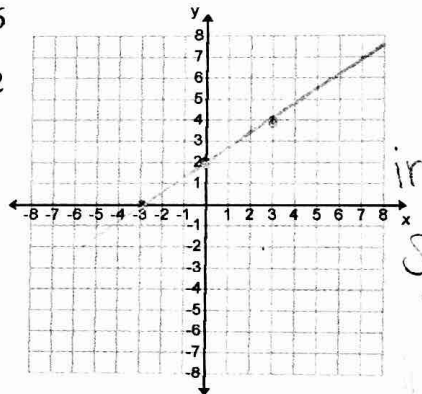
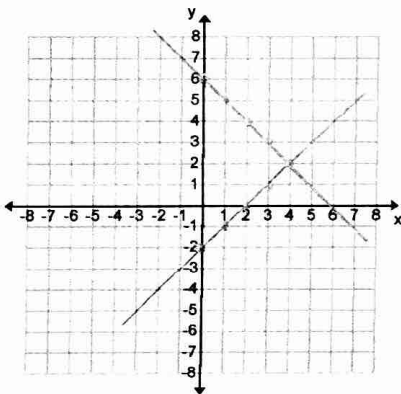
$y = \frac{2}{3}x + 2$

$y = \frac{2}{3}x + 2$



5. $x + y = 6$
 $x - y = 2$

$(4, 2)$



infinite
same
line

7. This graph shows the Kangaroo Company's production costs and revenue for its pogo sticks. Use the graph to estimate the answers to the questions below.

a. 25 pogo sticks are sold, will the company earn a profit? Describe how you can use the graph to answer this question.

no, the costs are higher

b. If the company sells 200 pogo sticks, will it earn a profit? If so approximately how much?

yes $650 - 520 = \$130$

c. How many pogo sticks must the company sell to break even? How do you know?

120, where the lines meet

