NAME _____ NUMBER _____ PERIOD _____

T3-12 Review for Systems Test

Solve each system of equations using the Elimination Method.

1) $\begin{cases} x - 10y = 60 \\ x + 14y = 12 \end{cases}$

(40, -2)

2) $\begin{cases} -5x + 7y = 11 \\ -5x + 3y = 19 \end{cases}$

(-5, -2)

3) $\begin{cases} 2x + 3y = 12 \\ 5x - y = 13 \end{cases}$

(3, 2)

4) $\begin{cases} -3x + 4y = 12 \\ 2x + y = -8 \end{cases}$

(-4, 0)

5) $\begin{cases} 2x + 4y = -4 \\ 3x + 5y = -3 \end{cases}$

(4, -3)

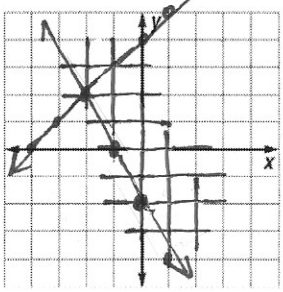
6) $\begin{cases} 5x + 2y = -1 \\ 3x + 7y = 11 \end{cases}$

(-1, 2)

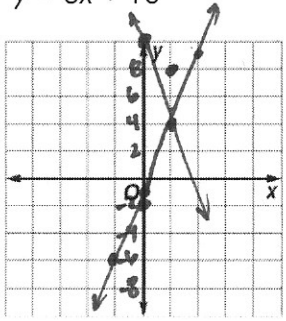
NAME _____ NUMBER _____ PERIOD _____

Solve each system of equations by graphing.

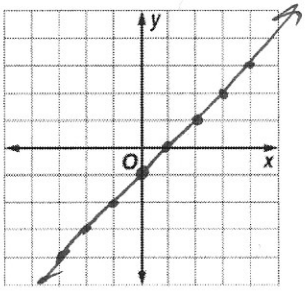
7. $y = x + 4$
$y = -2x - 2$ $(-2, 2)$



8. $5x - y = 1$ $y = 5x - 1$
$y = 5x + 10$ $(1, 4)$

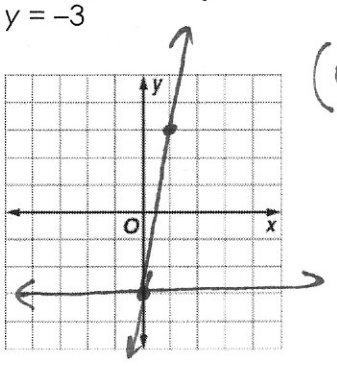


9. $y = x - 1$
$y - x = -1$ $y = x - 1$



∞ Solutions

10. $6x - y = 3$ $y = 6x - 3$
$y = -3$ $(0, -3)$



NAME _____ NUMBER _____ PERIOD _____

11) A movie theater sells tickets for $9.00 each. Senior citizens receive a discount of $3.00. One evening the movie theater sold 636 tickets and took in $4974 in revenue. How many tickets were sold to senior citizens? How many were sold to "moviegoers" who were not senior citizens?

	$	#	Total
m	9	m	9m
S	6	S	6S
Total	////	636	$4974

$m+s = 636$
$9m+6s = 4974$

250 Senior citizen tickets
386 movie goer tickets

12) How many ounces of 20% hydrochloric acid solution and 70% hydrochloric acid solution should be mixed to obtain 20 ounces of 50% hydrochloric acid solution?

	%	#(amount)	Total
20% t	.20	t	.2t
70% S	.70	S	.7S
New	.50	20	.5(20)

$t+S = 20$
$.2t+.7S = 10$

12 oz of 70% acid
8 oz of 20% acid