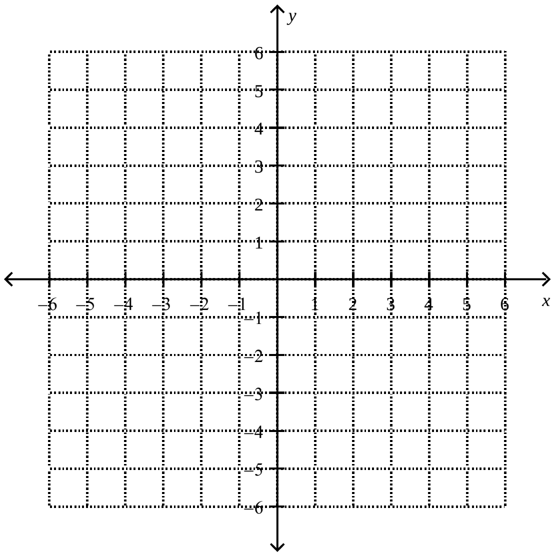
Name: ____ Period: _____

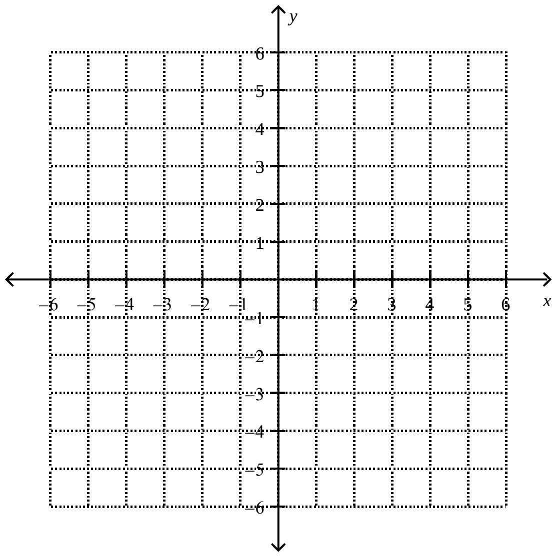
HW #3 – Solving Systems Algebraically (Set them equal)

Graph the following system of equations, find the solution.

1. $\begin{cases} y = x - 1 \\ y = -x + 3 \end{cases}$

2. $\begin{cases} y = 4x + 6 \\ y = 2x + 2 \end{cases}$





Confirm the same answers algebraically.

1. $\begin{cases} y = x - 1 \\ y = -x + 3 \end{cases}$

2. $\begin{cases} y = 4x + 6 \\ y = 2x + 2 \end{cases}$

Solve the following systems algebraically. Hint: set them equal and solve for *x*.

3. $\begin{cases} y = -5x + 8 \\ y = -2x - 7 \end{cases}$

4. $\begin{cases} y = 22x + 4 \\ y = 14x + 28 \end{cases}$

5. Suppose a video store charges nonmembers \$4 to rent each video. A store membership costs \$21 and members pay only \$2.50 to rent each video. For what number of videos is the cost the same?

6. Suppose your club is selling candles to raise money. It costs \$100 to rent a booth from which to sell the candles. If the candles cost your club \$1 each and are sold for \$5 each, how many candles must be sold to equal your expenses?

Spiral:

7. Jane's cell phone plan is \$40 per month plus \$0.15 per minute for each minute over 200 minutes of call time. If Jane's cell phone bill is \$58.00, for how many extra calling minutes was she billed?

Evaluate the following expressions:

8. ab^3, where $a = \frac{1}{4}$ and $b = -2$

9. $(2^4)^3$

10. *Multiple Choice:*

Which is a table of values for $y = x - 6$?

a.

x	y
−5	1
−8	−14
−7	−13

b.

x	y
−5	−11
−8	−2
−7	−13

c.

x	y
−5	−11
−8	−14
−7	−13

d.

x	y
−5	1
−8	−2
−7	−1