**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**M8-U5: HW #3 – Solving Systems Algebraically – set them equal**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Graph the following system of equations, find the solution.**

**1.**  **2.** 



**Confirm the same answers algebraically.**

**1.**  **2.** 

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

**3.**   **4.** 

**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.** , where  and  **9.** 

**10.** *Multiple Choice:*

Which is a table of values for?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **a.** |  | **b.** |  | **c.** |  | **d.** |  |