

## 5.1 - Practice C

### Solving Systems by Graphing

Tell whether the ordered pair is a solution of the given equation.

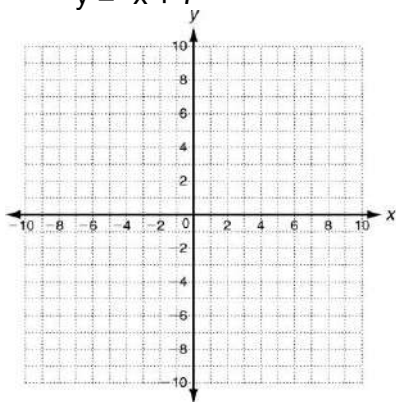
1.  $(6, -2)$ ;  $2x - y = 14$   
 $x + 4y = -2$

2.  $(4, 0)$ ;  $x - 2y = 4$   
 $-x + y = -8$

3.  $(-6, -2)$ ;  $2x - y = -10$   
 $-x + y = 4$

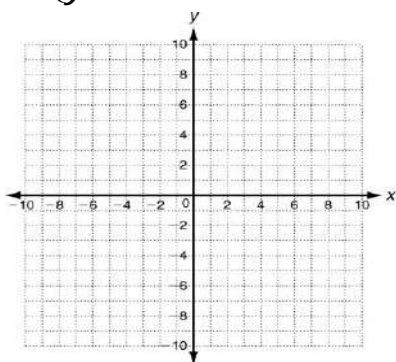
Solve each system by graphing.

4.  $y = 2x + 4$   
 $y = -x + 7$



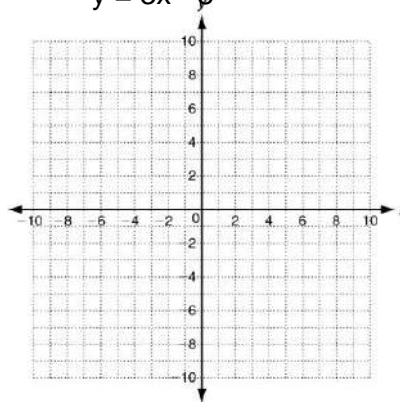
Solution: \_\_\_\_\_

6.  $\begin{cases} x + y = -2 \\ y = 4x - 7 \end{cases}$



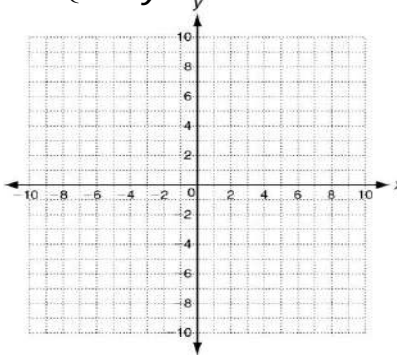
Solution: \_\_\_\_\_

5.  $y = 2x - 6$   
 $y = 3x - 8$



Solution: \_\_\_\_\_

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



Solution: \_\_\_\_\_

Use a graphing calculator to solve.

8. To sell an item in an online auction, WebAuctions charges a \$5 listing fee plus 10% of the final selling price. AuctionsOnline charges a \$3 listing fee plus 15% of the final selling price. For what final price do both companies charge the same amount? What will that amount be? \_\_\_\_\_

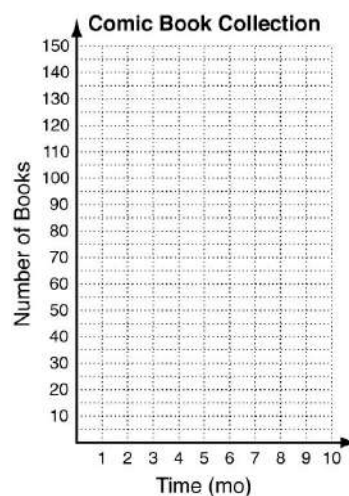
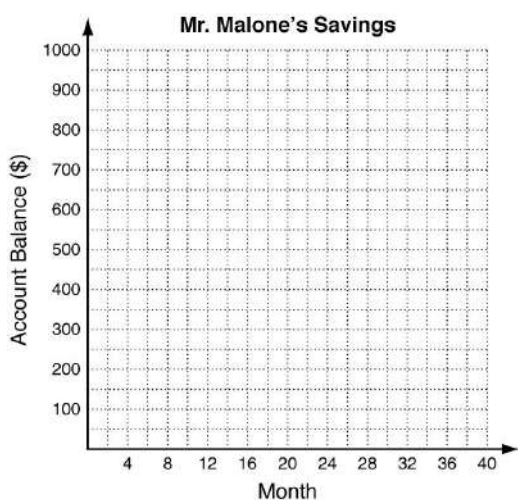
## 5.1 - Problem Solving

### Solving Systems by Graphing

Write the correct answer.

1. Raina is putting money in two savings accounts. Account A started with \$200 and Account B started with \$300. Raina deposits \$15 in Account A and \$10 in Account B each month. In how many months will the accounts have the same balance? What will that balance be?

2. Alex currently has 5 comic books in his collection and has subscribed to receive 5 new comic books each month. His uncle has 145 comic books, but sends 5 to each of his 3 nieces each month. In how many months will they have the same number of comic books? How many books will that be?



The graph below compares the heights of two trees. Use the graph to answer questions 3–6. Select the best answer.

3. How many years after planting will the trees be the same height?

- A 1 years                      C 4 years  
B 2 years                      D 6 years

4. Which system of equations is represented by the graph?

- F  $\begin{cases} y = x + 2 \\ y = 0.5x + 2 \end{cases}$                       H  $\begin{cases} y = 2x + 4 \\ y = x + 4 \end{cases}$   
G  $\begin{cases} y = x + 2 \\ y = 0.5x + 4 \end{cases}$                       J  $\begin{cases} y = 4x - 2 \\ y = 2x + 2 \end{cases}$

5. How fast does the tree that started at 2 feet tall grow?

- A 0.5 ft/yr                      C 1.5 ft/yr  
B 1 ft/yr                      D 2 ft/yr

6. How fast does the tree that started at 4 feet tall grow?

- F. 0.5 ft/yr                      H. 1.5 ft/yr  
G. 1 ft/yr                      J. 2 ft/yr

