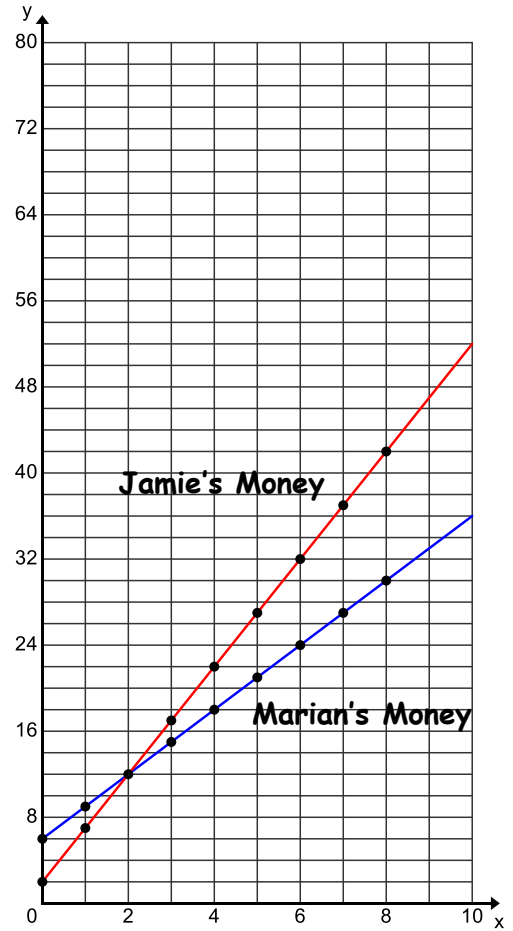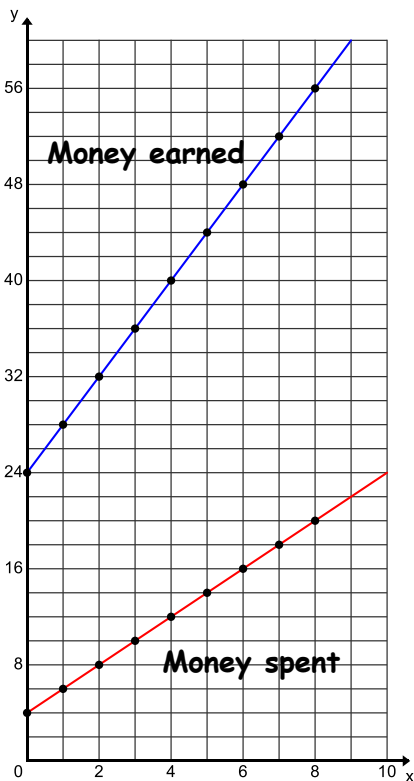Name: _____ Date: _____ Period: _____

Features of Functions #6 Classwork

1. At the right is a graph the shows how much money Jamie and Marian earn each week.

a. Fill out the table to show how much money each person has at the end of the week, and how much money they have together.

Weeks	Jamie's Money	Marian's Money	Total Money
0			
1			
2			
3			
4			
5			

b. On the graph at the right, graph the amount of total money each week.

c. Write an equation to represent the amount of money Jamie has at the end of w weeks.

d. Write an equation to represent the amount of money Marian has at the end of w weeks.

e. Write an equation that would represent how much money they have together at the end of w weeks.

2. At the left is a graph the shows how much money Stephen earns each week and how much he spends each week.

a. Fill out the table to show how much money Stephen earned each week, how much he spent each week, and how much money he has left.

Weeks	Money earned	Money spent	Money left
0			
1			
2			
3			

b. On the graph at the left, graph the amount of money remaining each week.

3. In numbers 1 and 2, you have added and subtracted two functions. If the functions are represented by $f(x)$ and $g(x)$ then adding the two functions can be represented by $(f + g)(x)$ or $f(x) + g(x)$ and subtracting the functions can be represented by $(f - g)(x)$ or $f(x) - g(x)$.

If $h(x) = -2x + 7$, $g(x) = 3x - 8$, and $f(x) = 4x + 5$, perform the indicated operation.
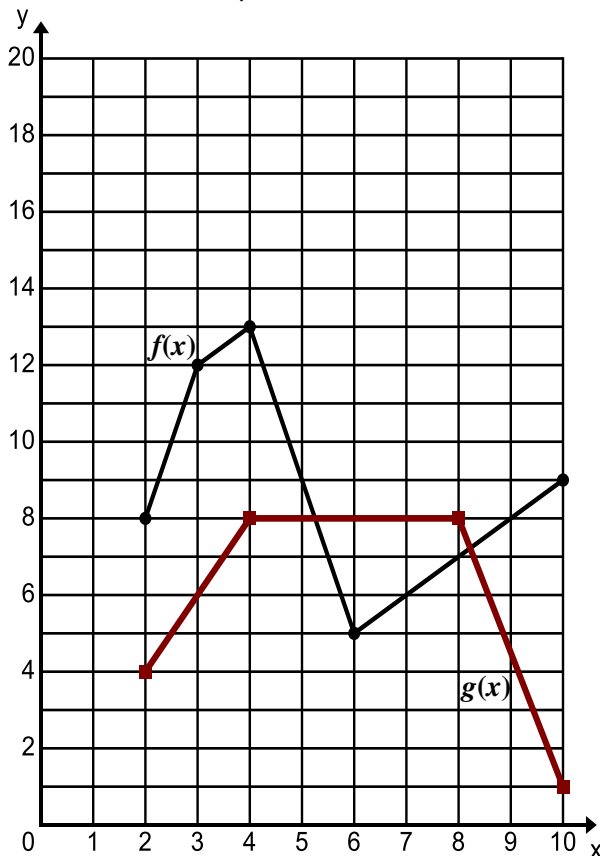
a. $h(x) + g(x)$

b. $(f - g)(x)$

c. $(f + g)(x)$

d. $g(x) - h(x) + 5$

4. Graph $f(x) + g(x)$

5. Graph $f(x) - g(x)$