**Chapter 7 Review Packet**

**Name:**  **Date:**

**Solve the following word problems (8 points)**

1). Fitness A gym is selling monthly memberships for $30 each and reusable water bottles for $7 each. The gym needs to make $1050 by the end of the month. A). Write a linear equation that describes the problem.

B). Graph the linear equation. Find values for your graph and make sure to label both axes with

 appropriate titles.

C). Use the graph to approximate the number of water bottles that the gym must sell if it sells

 28 gym memberships.

2). A bookstore sells textbooks for $80 each and notebooks for $4 each. The bookstore would like to sell $800 in merchandise by the end of the week.

A). Write a linear equation that describes the problem.

B). Graph the linear equation. Find values for your graph and make sure to label both axes with

 appropriate titles.

C). Use the graph to approximate how many textbooks the bookstore must sell if it sells 40

 notebooks.

**Solve the following problems (6 Points)**

3). Lottie needs a driver. Driver A is offering his services for an initial $200 in addition to $80 per hour. Driver B is offering his services for an initial $230 in addition to $70 per hour. When will the two drivers charge the same amount of money?

4). Garrett needs a baseball coach. Coach A is offering her services for an initial $5000 in addition to $450 per hour. Coach B is offering her services for an initial $4000 in addition to $700 per hour. When will the two coaches charge the same amount of money?

5). Zena needs a salesperson. Salesperson A is offering his services for an initial $50 in addition to $5 per hour. Salesperson B is offering her services for $15 per hour. When will the two salespeople charge the same amount of money?

**Solve the following inequalities and graph your results (8 points)**

6). 10x - 6y > -36

7). 7x + 2y < 2

**Create an equations using in the form of** $y-y\_{1}=m\left(x-x\_{1}\right). $ **(3 points)**

8). Slope is $\frac{3}{4}$ and the point (4, 3) is on the line. 9). The points (1, 4) and (4, 16) are on the line

**Create an Equation in the form A(x) + B(y) = C by using** $y-y\_{1}=m\left(x-x\_{1}\right).$ **(3 points)**

10).Slope is $\frac{1}{2}$ and the point (2, 4) is on the line. 11). The points (2, 5) and (8, 20) are on the line

**Create an equation in the form of y = m(x) + b. (3 points)**

12). Slope is $\frac{2}{5}$ and the point (10, 2) is on the line. 13). The points (3, 6) and (9, 18) are on the line