Pre-7 Worksheet (2 pages)

Solve the following Word Problems involving Linear Equations.

1. **A plumber charges $50 to make a house call. He also charges $25.00 per hour for labor.**

a. Write an equation that you could use to the amount a plumber charges for a house call based on the number of hours of labor. **(Make sure to define your variables)**

b. How much would it cost for a house call that requires 2.5 hours of labor?

c. If the bill from the plumber is $162.50, how many hours did the plumber work at your house?

2. **Marty is spending money at the average rate of $3 per day. After 14 days he has $68 left. The amount left depends on the number of days that have passed.**

a. Write an equation for the situation. **(Make sure to define your variables)**

b. Find the amount of money he began with.

c. How much money does Marty have after 9 days?

3. **A plane loses altitude at the rate of 5 meters per second. It begins with an altitude of 8500 meters. The plane's altitude is a function of the number of seconds that pass.**

a. Write an equation modeling this situation. **(Make sure to define your variables)**

b. Use your equation to find out how much time will pass before the plane will land (hint: what is the altitude when the plane lands?)

4. An internet service provider charges $18 per month plus an initial set –up fee. One customer paid a total of $81 after 2 months of service.

a. Write an equation modeling this situation. **(Make sure to define your variables)**

b. What is the initial set-up fee?

c. How much does it cost after 5 months of service?

5. The Ramy family bought 4 sandwiches and 3 salads. They spent $24.

a. Write an equation. **(Make sure to define your variables)**

b. If each sandwich costs $3.75, how much did each salad cost?

6. It will take 20 points to make the playoffs, the hockey team's coach told the players. "We get 2 points for a win and 1 point for a tie." Let *W* be the number of wins and *T* the number of ties.

a. Write an equation to describe the values of wins and ties that will let the team make the playoffs.

b. If your team wins 7 games, how many tie games will need to occur to still make the playoffs?