Algebra 1                                        Name_____

# Modeling with Multi-Step Equations

**Write an equation to model each situation. Then solve the equation.**

1) General admission tickets to the fair cost $3.50 per person. Ride passes cost an additional $5.50 per person. Parking costs $6 for the family. The total costs for ride passes and parking was $51. How many people in the family attended the fair?

2) Angela ate at the same restaurant four times. Each time she ordered a salad and left a $5 tip. She spent a total of $54. Write and solve an equation to find the cost of each salad.

3) The sum of three integers is 228. The second integer is 1 more than the first, and the third integer is 2 more than the first. Write an equation to determine the integers. Solve your equation. Show your work.

4) A plumber finished three jobs on Tuesday. The first two only cost the owner the $45 trip fee because they took very little time to complete. For the third job, the plumber charged the trip fee plus 6 times his hourly rate. If the plumber received a total of $303 for the day, what is the hourly rate?

5) Eli took the fleet of 8 vans for oil changes. All of the vans needed windshield wipers which cost $24 per van. The total bill was $432. Write an equation to find out what each oil change cost. Solve the equation.

6) A merchant is selling wind chimes from a booth at a flea market. He rents his space for $125 per day. The profit from each wind chime sold is $12. His goal is to make $3500 in a five day work week. How many wind chimes does he need to sell in a week (Monday - Friday ) to make his goal?

7) Four friends are planning to play 18 holes of golf. Two of them need to rent clubs at $5 per set. Total cart rental is $10. The total cost of the golf outing, including green fees, is $92. How much did the friends pay in green fees?

8) There is a 12 foot fence on one side of a rectangular garden. The gardner has 44 feet of fencing to enclose the other three sides. What is he length of the garden's longer dimension?

9) You have a part-time job. You work 3 hours on Friday and 6 hours on Saturday. You also receive an allowance of $20 per week. You earn $92 per week. How much do you earn per hour at your part-time job?

10) A family buys airline tickets online. Each ticket costs $167. The family buys travel insurance with each ticket that costs $19 per ticket. The web site charges a fee of $16 for the entire purchase. The family is charged a total of $1132. How many tickets did the family buy?