UNIT 1 LESSON 3 PRACTICE

1) The sum of a number and 9 is multiplied by -2 and the answer is -8. Write an equation that represents the situation. Find the number.

2) In a given amount of time, Jamie drove twice as far as Rhonda. Altogether they drove 90 miles. Write an equation that represents the situation. Find the number of miles driven by each person.

3) You are participating in a fund-raiser in which you run for donations. People can donate money based on a flat fee or based on the number of miles you run. So far, you have two donors. Your grandma has agreed to donate $15 and your mom has agreed to donate $1.70 per mile. If together they donated $20.10, write an equation that represents this situation.

4) It costs $125 to buy a heater and about $0.40 per minute to run it. Write an equation that models the total cost of using a heater? If the heater is run for one hour, how much is the total cost of using the heater?

5) Your computer crashed, and the final bill was $256.50. The new computer components cost $99, and the charge for the technician's labor is $45 per hour. Write an equation to model this situation, then solve the equation for the number of hours the technician worked on your computer.

6) Mina bought a plane ticket to New York City and used a coupon for 10% off the ticket price. The total cost of her ticket, with the discount, was $253.10. Write an equation that she could use to find the price of the ticket without the discount. What was the price of the ticket without the discount?

7) James earns $15 per hour as a teller at a bank. In one week he pays 17% of his earnings in state and federal taxes. His take-home pay for the week is $460.65. How many hours did James work?

What is the solution to the equation $5x - 3(5x + 10) - 14 = 82 - 12x$?

How many terms are in the simplified expression $24x^3 + 25x - 6x - 16x + 13$?

What is the solution to the equation $8x + 5 + 8x = 26 + 9x$?

What is the solution to the equation $3(3x + 5) = 2x - 20$?

What is the solution to the equation $-8x + 3(5x - 1) + 15 = -5x + 6$?