Section 4.5 Worksheet   Name_____
Mathematical Models in Purchasing an Automobile

Show your work for all problems. Round your answers for money problems to the nearest penny and all percents to one decimal place.

1. Maribeth offers 6.5% over dealer cost on a Honda Accord that has a sticker price of $21,000 and a dealer cost of $17,000. Determine the amount of this offer.

2. Allison offers 6% over dealer cost on a Ford Explorer that has a sticker price of $31,000 and a dealer cost of $29,000. Determine the amount of this offer.

3. Sarah purchased a car for $26,885 at 3.2% add-on rate for 4 years. Determine the amount of interest and the monthly payment that Sarah had to make.

4. Emilio purchased a car for $16,085 at 2.5% add-on rate for 4 years. Determine the amount of interest and the monthly payment that he had to make.

5. A newspaper advertisement offers a $5000 used car for nothing down and 36 easy monthly payments of $175.00. What is the simple interest rate?

6. A newspaper advertisement offers a $7500 used car for nothing down and 36 easy monthly payments of $255.00. What is the simple interest rate?

7. Everett's new motorcycle costs $9500 including taxes and tags. His down payment was $1000, and he financed the balance at 9.5% APR for 36 months. How much was his monthly payment?

8. Vivian's new car costs $32,000 including taxes and tags. Her down payment was $10,000, and she financed the balance at 9.5% APR for 48 months. Calculate her monthly payments.

9. Stefano bought a used car for $5750. He paid $700 down and financed the balance for 36 months. His monthly payments were $158.25. Find the finance charge that he paid and the APR that he was charged.

10. Amanda bought a used car for $7500. She paid $1000 down and financed the balance for 30 months. Her monthly payments were $245.77. Find the finance charge that she paid and the APR that she was charged.