Name_____ Date _____

Chapter 6

Performance Task (continued)

The New Car

There is so much more to buying a new car than the purchase price. Interest rates, depreciation, and inflation are all factors. So, what is the real cost of your new car?

The Car

1. Use the Internet to look up the base purchase price for the car you would like to buy. Review the optional equipment and decide on three things you would like to add to your car. Add the destination and handling charges if you can find them.

Car Brand/options	Cost of the item
Destination and Handling	
Total Car Cost	

2. Next find the sales tax rate for your area. The rate is _____. Use that tax rate to calculate the cost of your car including sales tax.

3. Now, if you do not have that much money, you will need to borrow the money. There are many options available, with charts and a complex formula to calculate the exact payment, but you can estimate your payment more easily as follows.

P = Principle (amount borrowed) = _____

Y = Determine how many years you will take to pay (3 and 7 years). = _____

R = interest rate you could borrow your money (2.5% and 8%) as a decimal
= _____

Estimate your monthly payment with the following formula.

$$\frac{\left[(Y \bullet R) + 1\right] \bullet P}{12 \bullet Y} = \text{Monthly Payment} = \_\_\_\_\_$$

Name _____ Date _____

Chapter 6 Performance Task (continued)

The New Car

4. The numerator of the formula in Exercise 3 is $\left[(Y \bullet R) + 1\right] \bullet P$. This value is an estimate for the amount you will ultimately pay back. Write that amount here _____.

5. There are so many other costs people do not always prepare for or expect. Create a depreciation chart based on the amount you would have paid for your car from Exercise 1.

Estimated percent of value after depreciation	Amount of depreciation from previous time	Value of the car
New (100%)		(100%)
After 1 minute		(91%)
After 1 year		(81%)
After 2 years		(69%)
After 3 years		(58%)
After 4 years		(49%)
After 5 years		(40%)

6. The inflation rate in February 2014 is approximately 1.6%. Traditionally, the U.S. averages 3% inflation. If you were to postpone buying the car for 5 years, what would be the estimated cost of the car? Use the formula:
$\text{Price}\,(1 + 0.03)^5 = \text{new cost}.$

7. Considering all this information, what do you think would be your wisest choice for purchasing a car? Use the information and calculations from this activity to support your decision.