Homework Problems from Chapter 10 Interest and Money   Due at Final April 29

Name_____

For each problem, show your work.
Try to use the formulas/equations that we talked about in class.

6. Out of a group of 320 students who took a Calculus
Readiness Test, 248 passed. What percentage of the students passed the test?

11. Total health care spending in the United States during
2005 was $2 trillion, representing approximately 16% of
the gross domestic product. Estimate the gross domestic
product of the United States in 2005 to the nearest billion dollars.

17. Over a period of one week, the Dow Jones Industrial Average (DJIA) did the following: On Monday the DJIA went up by 2.5%, on Tuesday it went up by 12.1%, on Wednesday it went down by 4.7%, on Thursday it went up by 0.8%, and on Friday it went down by 5.4%. What was the percentage increase/decrease of the DJIA over the week? Round your answer to the nearest tenth of a percentage point.

20. Willy's commission on selling new cars is a percentage of his sales total. His commission on used cars is 50% more than that on new cars. During the month of January, Willy sold new cars worth a total of $80,000 and used cars worth a total of $50,000. His commission check for the month was $3100.

   (a) What percentage commission does Willy earn on used cars?

   (b) What percentage commission does Willy earn on new cars?

32. Suppose that you deposit $1237.50 in a savings account that pays 8.25% annual interest, with interest credited to the account at the end of each year. Assuming that no withdrawals are made, find the balance in the account after

(a) 3 years.

(b) $4\frac{1}{2}$ years.

44. Fill in the entries in the last column of the table.   Show your work.

APR	Compounding	APY
8%	Yearly	
8%	Semiannually	
8%	Quarterly	
8%	Monthly	
8%	Daily	
8%	Hourly	
8%	Continuously	

50. A sum of money is invested for three years in a CD paying an APY of 10%. At the end of the three years you get a check for $732.05. How much was the original principal?

JOGGING

81. How much should a retailer mark up her goods so that when she has a 25% off sale, the resulting prices will still reflect a 50% markup (on her cost)?

82. Joe, a math major, calculates that in the last three years tuition at Tasmania State University has increased a total of exactly 12.4864%. He also knows that tuition increased by the same percentage each year. Determine this percentage.