

Math 107 Quiz #2
January 19, 2011

Name: _____

Show all work on a separate paper. Staple this sheet to your answers. You may use a calculator on this quiz.

1. (2 pts.) Suppose that during one year, the cost of an item increased from a price of \$5 to a price of \$7. By what percentage did the price increase?
2. Suppose a company developing a test for a certain disease has the following information from testing a sample population of 10,000 people. Use the information in the table to answer questions (a)-(c).

	Has Disease	No Disease	Total
Test Positive	196	196	392
Test Negative	4	9,604	9,608
Total	200	9800	10,000

- (a) (2 pts.) What percentage of the sample population has the disease?
 - (b) (2 pts.) If a person tests positive for the disease, what is the actual chance that they have the disease?
3. (3 pts.) Suppose you invest \$2,000 today in an account that gives 6% interest compounded **annually**. In 15 years, how much will you have in the account? (Round to the nearest cent.)
 4. (3 pts.) How much would you need to invest today in an account that gives 9% compounded **monthly** in order to have \$10,000 in ten years? (Round to the nearest cent.)
 5. (3 pts.) What is the annual percentage yield (APY) for an account that gives 10% compounded **quarterly**?