

Math 162

Quiz 4

Form A

Show all work in a neat and organized fashion. Clearly indicate your answers.
10 points possible.

Use correct units!!

1. (3 pts.) Rewrite this sentence to express how rapidly, on average, the quantity changed over the given interval.

The company lost \$30000 during the past 4 months.

2. (3 pts.) In 1974, a near perfect copy of a first state, factory sealed mono record “Yesterday...and Today” with a Butcher cover was sold for \$457. In 2000, the sale price for the highest grade factory sealed mono Butcher cover was \$12500 (based on data from [http://www.rarebeatles.com/album2/butcher/butch\\$.htm](http://www.rarebeatles.com/album2/butcher/butch$.htm)). Find the average rate of change in value of such a record from 1974 through 2000.

3. (1 pts.) $H(w)$ is total cost in dollars for purchasing w pens. Write the following statement in function notation (like $J(1985)=1985$.)

To buy 300 pens, it costs \$500.

4. (3 pts.) If a country has a growth rate of 3.8 percent per year, how many years will it take for that country’s population to double? Use an exponential model, and please round your answer to 3 decimal places.