

Show all work to get full credit of this 25 point quiz.

1. (*5 points*) Solve for P:

$$\$4000 = P(1 + 0.02) \exp() \quad (1)$$

2. (*4 points*) Give the Equation of the Future value of Compound Interest (with more compoundings). Define all the variables you use.

3. (*5 points*) The population of the world in the year 2000 was 6.0 billion. This was a 20% increase over the population in 1990. What was the population of the world in 1990?

4. (*6 points*) If you deposit \$1000 at 6% annual compound interest for 10 years, what will the value be if the compounding is:

- (a) Annual
- (b) Semi-Annual
- (c) Quarterly
- (d) Daily

5. (*5 points*) An ad for interest rates on certificate of deposit (CD) advertises a CD with a minimum deposit of \$100,00 and an APY of 1.15%. If you invest the minimum amount, what will the value of this investment be at the end of a 5 year period? Round your answer to the nearest dollar.