Practice Problems - Compound Interest!

1) After 6 months of investing, your portfolio has a value of $12,500. You started with $10,000. What is the percentage increase in your portfolio?

---

2) You bought 500 shares of Microsoft Corporation 5 weeks ago at $23.12 per share. Today the share price is $19.62.

a. How much money have you lost?

b. What is the percentage loss for this investment?

---

3) An amount of $2,500.00 is deposited in a bank paying an annual interest rate of 5.3 % compounded quarterly. Find the balance after 3 years.

---

4) An amount of $3000.00 is deposited in a bank paying an annual interest rate of 5 % compounded daily.

(a) Find the balance after 4 years.

(b) *Find the interest gained in 4 years.*

---

5) An amount of $2,000.00 is deposited in a bank paying an annual interest rate of 3.5%, compounded continuously.

(a) Find the balance after 3 years.

(b) How long would it take for the money to double?

6) Give an example of converting an exponential form equation to logarithm form.

7) Write the change of base formula using an example.

8) How long would it take to double $500 at 7.2% annual interes[illegible]?

$$MP = \frac{P(r/12)}{(1 - (1 + \frac{r}{12})^{-m})}$$

9) You are purchasing a car for $14,000 at 4.9% interest and financing this purchase over a period of 4 years.

(a) What would be your monthly payment?

(b) What would be the total cost of the car including finance charges?

(c) How much will you pay in interest for this purchase?

10) What is the monthly payment on the purchase of a $25,500 car after you put down $2,500 cash and finance it for 5 years at 5.5% interest?