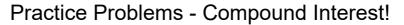
Practice problems compound interest



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?

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- 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 interest

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?