

# Worksheet #2

Exercise 1: Suppose you put \$5 in the bank, and every year the bank gives you 10% annual interest.

- How much money will you have in your account after 1 year?
- How much money will you have in your account after 10 years?
- How much money will you have in your account after 20 years?
- How much money will you have in your account after 100 years?

Exercise 2: If someone loans you \$1,000 with no interest, and you you make payments of \$100 every month, how long does it take you to pay off the loan?

Exercise 3: Suppose you have a credit card with a 24% annual interest rate. Also suppose the interest is compounded each month when the bill is sent. If you charge \$1,000 and didn't make any payments, how much would you owe after 1 year?

Exercise 3: Suppose you have the same credit card as in Exercise 3 (with a 24% interest rate that is compounded each month). Suppose you charge \$1,000 and then make a \$100 payment each month. How long does it take to pay off the loan? How much do you end up paying total on the loan?

It may help to use the following chart:

	<b>Amount Owed</b>  (Start with \$1,000. In following rows, copy Column 3 from prior row)	<b>Interest Added</b>  (Multiply Amount in Column 1 by 1.02.)	<b>Amount Owed After Payment</b>  (Take Amount in Column 2 and subtract 100.)
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			
Month 7			
Month 8			
Month 9			
Month 10			
Month 11			
Month 12			