

Solve the following using the formula for compounding continuously. Show all work for credit.

- 1) a) If Columbus invested 1¢ (\$0.01) at 2% interest with a Native American banker when he landed in the 'New World', how much would be in the account today rounded to the nearest cent?

1a) \_\_\_\_\_

- b) If Columbus invested 1¢ (\$0.01) at 4% interest with a Native American banker when he landed in the 'New World', how much would be in the account today rounded to the nearest cent?

1b) \_\_\_\_\_

- c) If Columbus invested 1¢ (\$0.01) with a Native American banker when he landed in the 'New World', at what interest percent rate would he need to find to have a billion dollars today?  
(Note: Write the answer as a percent rounded to 2 decimal places.)

1c) \_\_\_\_\_

- 2) If today you invested 50¢ (\$0.50) at 4.5% interest, how many years will it take to accumulate to \$1,000,000 ?  
(Round to the nearest tenth of a year.)

2) \_\_\_\_\_