10. If the inflation rate is 8 percent per year for 5 years, determine how much purchasing power the dollar lost. Your answer should be given as a percentage.

   hint: two steps FV of $1 = $1.47; It now takes $1.47 to buy what you could buy for a $1 five years ago. So, if you only have a $1 today, that will only buy you 1/1.47 of what it bought five years ago

   Solution: loss of 32%

   Time Period 0 = $1 buys a loaf of bread 1.47
   Time Period 5 = $1.47 buys a loaf of bread
   In year 5 = $1 buys 68.1% of a loaf (1/1.47) => Loss $1.68 or 32%

11. If inflation is 8% annually for the next five years, how many dollars will be needed five years from now to maintain the same purchasing power that $100 has today? $146.93

12. A major business publication reported a 12% annual rate of inflation based on a recent 1% monthly increase in the CPI (consumer price index). What is the correct annual rate of increase? 12.68%

   $1 \rightarrow $1.1268

13. You are on your cell phone talking to your roommate. Your roommate tells you that you just won a million dollars. After talking with your roommate, you go in and tell your boss what you really think of him and resign immediately. Because you resigned, you forgo the year end bonus of $10,000 which you were hoping to put in the stock market. When you arrived home, you find out that you won a million doll hairs, not dollars. If you would have received a 10% annual return on your stock market investment, how much would it have turned into in 40 years? $452,592.56

14. EMC Corporation filed a lawsuit against IBM. To settle the lawsuit, IBM offered $10,000,000 (today). If EMC continues the process, EMC management estimates winning and receiving $20,000,000 after all expenses. However, the funds would be received in 5 years. Using a required return of 14%, should EMC accept IBM's offer.

   No 14.87% vs. 14%

   OR \( PV = \frac{-10m}{(1.14)^5} \)