1. Suppose you own a risky asset with an expected return of 12% and a standard deviation of 20%. If the returns are normally distributed, the approximate probability of receiving a return greater than 32% is approximately:

\[ Z = \frac{32 - 12}{20} = 1; \text{ 32 is 1 standard deviation above the mean. The probability of being within 1 standard deviation is approximately 68%; therefore, probability above the mean is approximately } \frac{32}{2} = 16\%. \]

2. The return pattern on your favorite stock has been 5%, 8%, -12%, 15%, 21% over the last five years. What has your average return and holding period return over the last 5 years?

Average return = \( \frac{5 + 8 - 12 + 15 + 21}{5} = \frac{37}{5} = 7.4\% \)

HPR = \[ \left(1.05\right)\left(1.08\right)\left(0.88\right)\left(1.15\right)\left(1.21\right) \] - 1 = 1.389 - 1 = .3886 = 38.9%

3. You bought 100 shares of stock at $20 each. At the end of the year, you received a total of $400 in dividends, and your stock was worth $2,500 total. What was total dollar capital gain and total dollar return?

\[ \$\text{ Invest} = \$20(100) = \$2,000 \]
\[ \$\text{ Return} = \frac{\$2,500 + \$400 - \$2,000}{\$2,000} = .45 = 45\% \]

4. A year ago, you purchased 300 shares of IXC Technologies, Inc. stock at a price of $9.03 per share. The stock pays an annual dividend of $.10 per share. Today, you sold all of your shares for $28.14 per share. What is your total dollar return on this investment?

Total dollar return = \( (\$28.14 - \$9.03 + \$0.10) \times 300 = \$5,763 \)

5. One year ago, you purchased a stock at a price of $32 a share. Today, you sold the stock and realized a total return of 25%. Your capital gain was $6 a share. What was your dividend yield on this stock?

Capital gains yield = \$6 \div \$32 = 18.75\%; \text{ Dividend yield} = 25\% - 18.75\% = 6.25\%