Problem Set #6  Solutions

1. You put up $50 at the beginning of the year for an investment. The value of the investment grows 4% and you earn a dividend of $3.50. Your HPR was ____.

   A. 4.00%
   B. 3.50%
   C. 7.00%
   D. 11.00%

   Dividend yield = $3.50 / $50 = .07
   HPR = .04 + .07 = .11

2. The holding period return on a stock is equal to ________.

   A. the capital gain yield over the period plus the inflation rate
   B. the capital gain yield over the period plus the dividend yield
   C. the current yield plus the dividend yield
   D. the dividend yield plus the risk premium

3. The market risk premium is defined as __________.

   A. the difference between the return on an index fund and the return on Treasury bills
   B. the difference between the return on a small firm mutual fund and the return on the Standard and Poor's 500 index
   C. the difference between the return on the risky asset with the lowest returns and the return on Treasury bills
   D. the difference between the return on the highest yielding asset and the lowest yielding asset

4. Treasury bills are paying a 4% rate of return. A risk averse investor with a risk aversion of $A = 3$ should invest in a risky portfolio with a standard deviation of 24% only if the risky portfolio's expected return is at least ______.

   A. 8.67%
   B. 9.84%
   C. 12.64%
   D. 14.68%

   \[ E(r_p) - 0.04 = 0.5(3)(.24)^2 \]
   \[ E(r_p) = .1264 \]
5. The holding period return on a stock was 25%. Its ending price was $18 and its beginning price was $16. Its cash dividend must have been _________.

A. $0.25
B. $1.00
C. $2.00
D. $4.00

\[
0.25 = \frac{18-16+Div}{16}
\]

\[
16(0.25) = 2+Div
\]

Div = 2

6. Consider the following two investment alternatives. First, a risky portfolio that pays 15% rate of return with a probability of 40% or 5% with a probability of 60%. Second, a treasury bill that pays 6%. The risk premium on the risky investment is _________.

A. 1%
B. 3%
C. 6%
D. 9%

\[
E(R_{\text{risky}}) = 0.4(0.15) + 0.6(0.05) = 0.09
\]

Risk premium = .09 - .06 = .03