|  |
| --- |
| Suppose a stock had an initial price of $86 per share, paid a dividend of $1.80 per share during the year, and had an ending share price of $94. |

|  |
| --- |
| Compute the percentage total return. **(Round your answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Total return | % |

|  |
| --- |
| You’ve observed the following returns on Crash-n-Burn Computer’s stock over the past five years: 13 percent, –8 percent, 16 percent, 16 percent, and 10 percent. |

|  |  |
| --- | --- |
| **a.** | What was the arithmetic average return on Crash-n-Burn’s stock over this five-year period? **(Round your answer to 1 decimal place. (e.g., 32.1))** |

|  |  |
| --- | --- |
| Average return | % |

|  |  |
| --- | --- |
| **b-1** | What was the variance of Crash-n-Burn’s returns over this period? **(Round your answer to 5 decimal places. (e.g., 32.16161))** |

|  |  |
| --- | --- |
| Variance |  |

|  |  |
| --- | --- |
| **b-2** | What was the standard deviation of Crash-n-Burn’s returns over this period? **(Do not round intermediate calculations and round your final answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Standard deviation | % |

|  |
| --- |
| Suppose you bought a 4.4 percent coupon bond one year ago for $850. The bond sells for $900 today. |

|  |  |
| --- | --- |
| **a.** | Assuming a $1,000 face value, what was your total dollar return on this investment over the past year? |

|  |  |
| --- | --- |
| Total dollar return | $ |

|  |  |
| --- | --- |
| **b.** | What was your total nominal rate of return on this investment over the past year? **(Round your answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Nominal rate of return | % |

|  |  |
| --- | --- |
| **c.** | If the inflation rate last year was 1.5 percent, what was your total real rate of return on this investment?**(Round your answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Real rate of return | % |

|  |
| --- |
| You find a certain stock that had returns of 18 percent, −7 percent, 25 percent, and 18 percent for four of the last five years. The average return of the stock over this period was 14.48 percent. |

|  |
| --- |
| What was the stock’s return for the missing year? **(Round your answer to 1 decimal place. (e.g., 32.1))** |

|  |  |
| --- | --- |
| Stock’s return | % |

|  |
| --- |
| What is the standard deviation of the stock’s return? **(Do not round intermediate calculations and round your final answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Standard deviation | % |

|  |
| --- |
| You’ve observed the following returns on Crash-n-Burn Computer’s stock over the past five years: 13 percent, –8 percent, 16 percent, 16 percent, and 10 percent. Suppose the average inflation rate over this period was 1.5 percent and the average T-bill rate over the period was 5.0 percent. |

|  |  |
| --- | --- |
| **a.** | What was the average real return on Crash-n-Burn’s stock? **(Round your answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Average real return | % |

|  |  |
| --- | --- |
| **b.** | What was the average nominal risk premium on Crash-n-Burn’s stock?**(Round your answer to 1 decimal place. (e.g., 32.1))** |

|  |  |
| --- | --- |
| Average nominal risk | % |

|  |
| --- |
| A stock has a beta of 1.85 and an expected return of 14 percent. A risk-free asset currently earns 3.4 percent. |

|  |  |
| --- | --- |
| **a.** | What is the expected return on a portfolio that is equally invested in the two assets? **(Round your answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Expected return | % |

|  |  |
| --- | --- |
| **b.** | If a portfolio of the two assets has a beta of 0.74, what are the portfolio weights? **(Round your answer to 4 decimal places. (e.g., 32.1616))** |

|  |  |
| --- | --- |
| Weight of stock |  |
| Risk-free weight |  |

|  |  |
| --- | --- |
| **c.** | If a portfolio of the two assets has an expected return of 8 percent, what is its beta? **(Do not round intermediate calculations and round your answer to 3 decimal places. (e.g., 32.161))** |

|  |  |
| --- | --- |
| Beta |  |

|  |  |
| --- | --- |
| **d.** | If a portfolio of the two assets has a beta of 3.70, what are the portfolio weights? **(Negative amount should be indicated by a minus sign.)** |

|  |  |
| --- | --- |
| Weight of stock |  |
| Risk-free weight |  |

|  |
| --- |
| You own a portfolio that is 38 percent invested in Stock X, 24 percent in Stock Y, and 38 percent in Stock Z. The expected returns on these three stocks are 12 percent, 18 percent, and 14 percent, respectively. What is the expected return on the portfolio? **(Round your answer to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
| Portfolio expected return | % |
| You own a stock portfolio invested 35 percent in Stock Q, 30 percent in Stock R, 20 percent in Stock S, and 15 percent in Stock T. The betas for these four stocks are 0.79, 1.17, 1.18, and 1.35, respectively. What is the portfolio beta? **(Round your answer to 2 decimal places. (e.g., 32.16))** | | |

|  |  |
| --- | --- |
| Portfolio beta |  |

|  |
| --- |
| Consider the following information: |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | Rate of Return If State Occurs | | | | | |
| State of | Probability of | | |  | | | | | |
| Economy | State of Economy | | | Stock A | | | Stock B | | |
| Recession |  | 0.20 |  |  | 0.05 |  | − | 0.18 |  |
| Normal |  | 0.55 |  |  | 0.08 |  |  | 0.11 |  |
| Boom |  | 0.25 |  |  | 0.13 |  |  | 0.28 |  |
|  | | | | | | | | | |

|  |
| --- |
| Calculate the expected return for the two stocks. **(Round your answers to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
|  | Expected return |
| Stock A | % |
| Stock B | % |
|  | |

|  |
| --- |
| Calculate the standard deviation for the two stocks. **(Do not round intermediate calculations and** **round your final answers to 2 decimal places. (e.g., 32.16))** |

|  |  |
| --- | --- |
|  | Standard deviation |
| Stock A | % |
| Stock B | % |
|  | |

|  |
| --- |
| You have $19,000 to invest in a stock portfolio. Your choices are Stock X with an expected return of 12 percent and Stock Y with an expected return of 11.5 percent. If your goal is to create a portfolio with an expected return of 11.80 percent, how much money will you invest in Stock X and Stock Y? |

|  |  |
| --- | --- |
|  | Amount invested |
| Stock X | $ |
| Stock Y | $ |
|  | |