

Question 1
Problem #21, Chapter 10

Rates of return: 13.89%, 3.46%, -10.42%, 8.92% and 21.14%
Average Return: 7.4%
Standard Deviation: 11.9%

Question 2
Problem #26, Chapter 11

Covariance: -4.72
Correlation Coefficient: -0.3373

Question 3
Problem #12, Chapter 5

Payback Period: 1.904 years; 1.764 years
Profitability Index: 1.306; 1.409
NPV: 12,223.89; 6,138.24
Incremental PI: 1.243

Question 4

Operational Cash Flow: $(554,000 - 430,000)(1-0.35) + 0.35 \cdot 325,000/5 = 103.350$
Purchase of Equipment: -325,000
Sale of Equipment: $81,250(1-0.35) = 52,812.5$
Change in NWC = 95,000

$NPV = -325,000 - 95,000 + 103.35 \cdot A(15\%, 5\text{years}) + 52,812.5/(1.15)^5 + 95,000/(1.15)^5 = -65.83$

Question 5

Expected Return = 22.5%
Standard Deviation = 39.78%
Yes. It is in the Efficient Frontier. Minimum Variance Portfolio weight for ABC is 0.848
Weight for ABC is 0.6
Sharpe Ratio: ABC = 0.303; XYZ = 0.434; Choose XYZ

Question 6
Problem #31 Chapter 11

Expected Return: 10.54%