Practice Quiz 10: Risk Diversification

1. An investor uses a discount rate of 5% to value riskless investments. He is considering making a $15,000 equity investment in a new coffee shop in his neighborhood. Depending on the success of the coffee shop, the investor will either receive $5,000 or $50,000, each with a 50% probability, in five years. The investor requires a risk premium of 15% on such a risky investment. Calculate the net present value (NPV) of this investment.

2. Discuss risk diversification. Include both an intuitive and mathematical description of risk diversification.

3. Discuss correlation and the limits of risk diversification.

4. Discuss the diversification benefits of investing in multiple asset classes.

5. Which of the following statements is **true** of risk diversification?

A) An investor may reduce the standard deviation of the returns on his or her portfolio by buying several shares of the same company's stock.

B) Risk diversification is desirable because it reduces the chance of an extreme loss without reducing the chance of an extreme gain.

C) An investor may completely eliminate financial risk in a U.S. stock portfolio by diversifying across a sufficient number of stocks.

D) Risk may be diversified even if two assets are positively correlated (i.e. have a correlation coefficient of greater than zero).