University of Texas at Austin

Quiz # 19

More on diversification. More on the CAPM.

Please, provide your **final answers only** to the following problems:

Problem 19.1. (2 points) *Source: Course 2, May 2003, Problem #11.*
The variability of an investment portfolio that is balanced evenly between two stocks is lower than the average variability of the two individual stocks. *True or false?*

Problem 19.2. (2 points) *Source: Course 2, May 2003, Problem #11.*
Full diversification of an investment portfolio eliminates market risk. *True or false?*

Problem 19.3. (2 points) Under the **CAPM**, the expected return and the required return of the market portfolio are equal. *True or false?*

Problem 19.4. (5 points) *Source: Course 2, November 2002, Problem #36.*
Jack has an equally weighted portfolio of stocks X and Y. The beta of his portfolio is 0.9. Jill has an equally weighted portfolio of stocks X, Y, and Z. The beta of stock Z is 1.2, the Treasury bill rate of return is 6%, and the expected return on the market portfolio is 14.4%. What is the expected risk premium on Jill's portfolio?

(a) 6.0%
(b) 7.6%
(c) 8.4%
(d) 8.8%
(e) 10.1%

Problem 19.5. (5 points) For a certain stock, you are given that its expected return equals 0.12 and that its β equals 1.2. For another stock, you are given that its expected return equals 0.07 and that its β equals 0.4. Both stocks lie on the **Security Market Line (SML)**. What is the risk-free interest rate r_f?

(a) 0.04
(b) 0.045
(c) 0.0625
(d) 0.1075
(e) None of the above.