Calculations for Chapter 7 - Risk and Return

Expected Value:

Sales Value (V)	Probability (P)	Product
600	0.05	
800	0.10	
1,000	0.70	
1,200	0.10	
1,400	0.05	
	1.00	

Standard Deviation:

V	P	V - 1000	squared	times P
600	0.05			
800	0.10			
1,000	0.70			
1,200	0.10			
1,400	0.05			

Coefficient of Variation =

Calculating the Standard Deviation of a Two-Asset Portfolio

A two-stock portfolio has 30% in Stock A, with an expected return of 21% and a standard deviation of 5%
and the remainder in Stock B, with an 18% expected return and a standard deviation of 2%. The correlation coefficient is 0.6

	Amount	Weight	Expected Return	Standard Deviation	Correlation
Asset A	700,000	30.0%	21%	5%	0.6
Asset B	200,000	70.0%	18%	2%	0.6

The standard deviation for this portfolio is:

σp =
σp =
σp =
σp =

Calulating the CAPM

Assume the risk-free rate is 5%, the expected rate of return on the market is 15%, and the beta of your firm is 1.2.
Given these conditions, what is the required rate of return on your company's stock per the capital asset pricing model?

Beta
Market
Risk Free

CAPM =

You will be asked to compute the CAPM on the exam!