

# FINANCE 4335 STATISTICS CLASS PROBLEM

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Suppose the return distributions for two risky assets are as follows:

<i>State</i>	$p_s$	$r_{a,s}$	$r_{b,s}$
1	1/3	-3%	36%
2	1/3	9%	-12%
3	1/3	21%	12%

1. Calculate the expected returns for assets  $a$  and  $b$ .
2. Calculate the variances and standard deviations for assets  $a$  and  $b$ .
3. Calculate the covariance and correlation between assets  $a$  and  $b$ .
4. Calculate the expected return and standard deviation for an equally weighted portfolio consisting of asset  $a$  and  $b$ .
5. Determine the least risky combination of assets  $a$  and  $b$  and calculate the expected return and standard deviation for such a portfolio.