Assume that it is possible to borrow and lend risklessly at a rate of 4%. Also assume that the expected return on the tangency (i.e., the optimal) portfolio composed only of risky assets is 13% with a standard deviation of 18%. Below we list 6 pairs of expected return and standard deviation combinations. For each pair determine whether or not the pair is feasible. If it is feasible, then there is at least one investment that can be made using risky assets and riskless borrowing or lending that produces this level of expected return and standard deviation. Then, if the pair is feasible, determine whether it is efficient or not. It is efficient if the expected return is the highest level that can be obtained for the associated level of standard deviation.

Pair Standard Deviation Expected Return

a 20.00% 24.75%

b 12*.*00% 18.00%

c 30.00% 19.00%

d 60.00% 50.00%

e 10.00% 4.00%

f 45.00% 56.50%