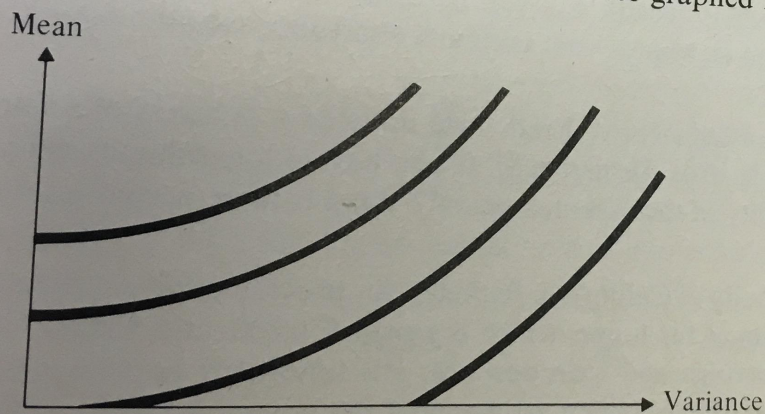


## PROBLEM SET

4.1 State in your own words the minimum set of necessary conditions needed to obtain mean-variance indifference curves like those graphed in Fig. Q4.1.



**Figure Q4.1**  
Mean-variance indifference curves.

4.2 Figure 4.6 shows the utility curve of a risk lover. What does the indifference curve of a risk lover look like?

4.3 You have a logarithmic utility function  $U(W) = \ln W$ , and your current level of wealth is \$5000.