

3. (15 points) Suppose that a decision maker faced with four decision alternatives and four states of nature develops the following payoff table:

Decision Alternative	State of Nature			
	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>
D <sub>1</sub>	909	1117	952	307
D <sub>2</sub>	252	457	505	1088
D <sub>3</sub>	1108	643	1075	841
D <sub>4</sub>	1120	558	629	1178

- a) What alternative would you recommend to an optimistic decision-maker? What is the expected payoff of this decision?
  
- b) What alternative would you recommend to a pessimistic decision-maker? What is the expected payoff of this decision?
  
- c) What alternative would you recommend using the equal-likelihood criterion? What is the expected payoff of this decision?
  
- d) What alternative would you recommend using the minimax regret criterion? What is the expected payoff of this decision?