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# **Quiz 5: Rationality**

## Quiz 5: Rationality

3/3 points (ungraded)

## Part 1

Consider a lottery L = [0.2, A; 0.3, B; 0.4, C; 0.1, D], where the utility values of each of the outcomes are U(A) = 1, U(B) = 3, U(C) = 5, U(D) = 2. What is the utility of this lottery, U(L)?

3.3

### Part 2

Consider a lottery L1 = [0.5, A; 0.5, L2], where U(A) = 4, and L2 = [0.5, X; 0.5Y] is a lottery, and U(X) = 4, U(Y) = 8. What is the utility of the first lottery, U(L1)?

5

#### Part 3

Assume  $A \succ B$ ,  $B \succ L$ , where L = [0.5, C; 0.5, D], and  $D \succ A$ . Assuming rational preferences, which of the following statements are guaranteed to be true?

- $A \succ D$
- $\square$   $B \succ D$



✓ Correct (3/3 points)

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