

Quiz 6

Name: _____

1. If $A \cap B$ is empty, and $P(A) = \frac{1}{8}$, $P(B) = \frac{3}{8}$, then what is $P(A \cup B)$?

2. An urn contains 5 balls, 3 red and 2 white. You select a ball and then, without replacing it, select another. What is the probability the second ball selected is red **given** that the first ball selected was red?

Recall that by definition $P(A|B) = \frac{P(A \cap B)}{P(B)}$

3. Suppose you roll two dice. A is the event you roll and 11. B is the event you roll an odd number. What is $A \cap B$ in plain English? Note: $A \cap B$ is a set, not a probability.

4. Compute $P(A \cap B)$

5. Compute $P(B)$

6. Compute $P(A|B)$