

Math 114
Practice Quiz – Basic Concepts of Probability

Name: _____

1. An experiment has 3 possible outcomes, A, B, C. Identify which probability assignments are valid. If they are not, state why they are not valid.
 - a. $P(A) = .35, P(B) = .40, P(C) = .20$ _____
 - b. $P(A) = .15, P(B) = .80, P(C) = .05$ _____
 - c. $P(A) = .35, P(B) = .75, P(C) = -.10$ _____

2. Given $P(A) = .65, P(B) = .80, P(A \cup B) = .95$ find
 - a. $P(A \cap B) =$ _____
 - b. $P(A \cap B')$ _____
 - c. $P(A' \cap B')$ _____

3. You roll a fair pair of dice. Find the following probabilities:
 - a. Roll the sum of 7 _____
 - b. Roll the sum of 6 or 10 _____
 - c. Roll doubles _____

4. Paul visits a local fast food restaurant for lunch. The probability he will order a burger is 0.84, the probability he will order fries is 0.61, and the probability that he will order both a burger and fries is 0.51.
 - a. Find the probability he orders a burger or orders fries or orders both.

 - b. Find the probability he does not order a burger and does not order fries.

5. The odds that it will snow in February are 25 to 2. What is the probability that it will snow in February?

6. A single die is rolled.
 - a. What are the odds that a 2 is rolled? _____
 - b. What are the odds for rolling a number less than 3? _____