

Name \_\_\_\_\_

Serial # \_\_\_\_\_

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) If events  $E$  and  $F$  are independent with  $P(E) = 0.45$  and  $P(F) = 0.35$ , find  $P(E \cap F)$ .

2) Ten tickets numbered from 1 to 10 are placed in a hat. If two tickets are randomly drawn with replacement, find the probability the sum is 16.

3) If  $P(E|F) = \frac{2}{3}$ ,  $P(E \cup F) = \frac{7}{10}$ , and  $P(E \cap F) = \frac{2}{5}$ , determine if  $E$  and  $F$  are independent or dependent.