Int Math 2 Name_____ ID: 1

Basic Skills Seven

Date_____ Period____

Represent the sample space using set notation.

1) A spinner can land on either red or blue.
You spin once.

Determine whether the scenario involves independent or dependent events.

2) A box of chocolates contains eight milk chocolates and four dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. The first piece is milk chocolate and the second piece is dark chocolate.

Determine if events A and B are independent.

3) $P(A) = \frac{9}{20}$ $P(B) = \frac{9}{20}$ $P(A \cap B) = \frac{27}{100}$

4) $P(A) = \frac{13}{20}$ $P(B) = \frac{13}{20}$ $P(A|B) = \frac{13}{20}$

Events A and B are independent. Find the missing probability.

5) $P(B) = \frac{1}{4}$ $P(A \cap B) = \frac{3}{20}$ $P(A) = ?$

Find the probability.

6) You flip a coin twice. The first flip lands heads-up and the second flip lands tails-up.

7) A bag contains six red marbles and five blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.

Find the number of possible outcomes in the sample space.

8) A hot dog stand offers both small and large hot dogs. Each hot dog can be ordered plain or with ketchup.

Determine if the scenario involves mutually exclusive events.

9) A box of chocolates contains four milk chocolates and four dark chocolates. One of the milk chocolates and one of the dark chocolates have peanuts inside. You randomly select and eat a chocolate. It is a milk chocolate or has no peanuts inside.

Events A and B are mutually exclusive. Find the missing probability.

10) $P(A) = \frac{1}{5}$ $P(B) = \frac{1}{4}$ $P(A \cup B) = ?$