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HOMEWORK 9.3

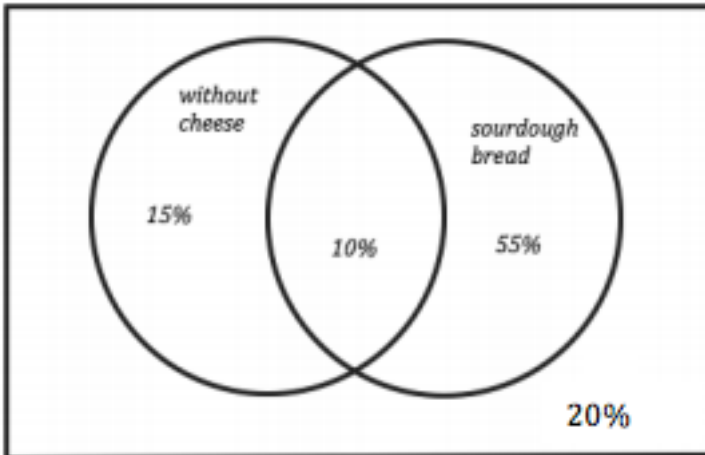
Secondary Math II

Determine if the experiment is dependent or independent. Remember: Independent events are not affected by each other, dependent events the first event affects the second event.

1. A coin is flipped twice. The first event is the first flip, the second event is the next flip.

2. A bag of marbles contains 3 blue marbles, 6 red marbles, and 2 yellow marbles. Two of the marbles are drawn out of the bag. The first event is the first marble taken out, the second event is the second marble taken out.

3. An attempt to find the probability of there being a right-handed or a left-handed batter at the plate in a baseball game. The first event is the 1st batter to come to the plate, the second event is the 2nd player to come up to the plate.



The Venn diagram on the left shows the data collected at a sandwich shop of the last six months with respect to the type of bread people ordered (sourdough or wheat) and whether or not they got cheese on their sandwich. Use the data to create a two-way frequency table and answer the questions.

4. Two-way frequency table

Use the information from the last page to answer the questions.

5. What is the probability that a randomly selected customer would order sourdough bread?

$$P(\text{sourdough bread}) =$$

6. What is the probability that a randomly selected customer would order sourdough bread without cheese?

$$P(\text{sourdough} \cap \text{no cheese}) =$$

7. What is the probability that a person prefers wheat bread without cheese?

$$P(\text{wheat} \cap \text{no cheese}) =$$

8. If they serve 100 sandwiches on a particular day, how many orders with sourdough should be prepared without cheese?

9. What is the probability that a randomly selected person would choose sourdough or without cheese?

$$P(\text{sourdough} \cup \text{no cheese}) =$$

10. What is the probability that a randomly selected person would NOT choose sourdough or no cheese?

Answers: 1. Independent 10. 20%

2. dependent

5. 65%

7. 15%