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Practice B
Compound Events

A can of vegetables with no label has a $\frac{1}{8}$ chance of being green beans and a $\frac{1}{5}$ chance of being corn.

1. Explain why the events "green beans" or "corn" are mutually exclusive.

   _____

2. What is the probability that an unlabeled can of vegetables
   is either green beans or corn? _____

Ben rolls a 1–6 number cube. Find each probability.

3. Ben rolls a 3 or a 4. _____

4. Ben rolls a number greater than 2 or an even number. _____

5. Ben rolls a prime number or an odd number. _____

Of the 400 doctors who attended a conference, 240 practiced family medicine and 130 were from countries outside the United States. One-third of the family medicine practitioners were not from the United States.
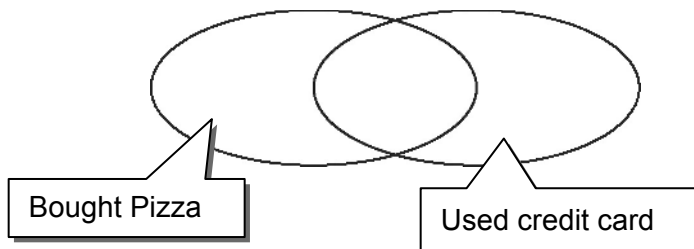
6. What is the probability that a doctor practices family
   medicine or is from the United States? _____

7. What is the probability that a doctor practices family
   medicine or is not from the United States? _____

8. What is the probability that a doctor does not practice
   family medicine or is from the United States? _____

Use the data to fill in the Venn diagram. Then solve.

9. Of the 220 people who came into the Italian deli on Friday, 104 bought
   pizza and 82 used a credit card. Half of the people who bought pizza
   used a credit card. What is the probability that a customer bought pizza
   or used a credit card?

Bought Pizza

Used credit card

_____

Solve.

10. There are 6 people in a gardening club. Each gardener orders seeds
    from a list of 11 different types of seeds available. What is the probability
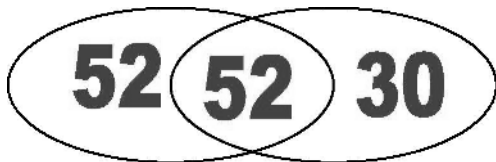   that 2 gardeners will order the same type of seeds? _____

Holt McDougal Analytic Geometry

7. 1

8. $\dfrac{1}{2}$

9. $\dfrac{2}{3}$

10. $\dfrac{10}{13}$ or 0.77

c. $\dfrac{11}{13}$

2. a. $\dfrac{1}{13}$

b. $\dfrac{1}{13}$

c. $\dfrac{2}{13}$

Practice B

1. These events are mutually exclusive because each can contains only one type of vegetable.

2. $\dfrac{13}{40}$

3. $\dfrac{1}{3}$

4. $\dfrac{5}{6}$

5. $\dfrac{2}{3}$

6. $\dfrac{7}{8}$

7. $\dfrac{29}{40}$

8. $\dfrac{4}{5}$

9. $\dfrac{67}{110}$ or 0.61

3. a. $\dfrac{26}{52}$

b. $\dfrac{4}{52}$

c. $\dfrac{2}{52}$

d. $\dfrac{7}{13}$

4. a. $\dfrac{13}{52}$

b. $\dfrac{12}{52}$

c. $\dfrac{3}{52}$

d. $\dfrac{11}{26}$

10. 0.81

Challenge

1. Given: $P(A) = 0.25$, $P(A \text{ or } B) = 0.35$, $P(A \text{ and } B) = 0.05$. Determine: $P(B)$

2. 15%

3. a. $\dfrac{1}{4} = \dfrac{2s}{5s + 6}$

b. 16 songs

c. $\dfrac{7}{8}$

Practice C

1. $\dfrac{14}{25}$

2. $\dfrac{3}{5}$

3. $\dfrac{31}{113}$ or 0.27

4. $\dfrac{777}{1130}$ or 0.69

5. $\dfrac{663}{1130}$ or 0.59

6. 0.07

7. 0.11

8. 0.29

9. $\dfrac{183}{236}$ or 0.78

10. 0.43

4. The probability of the shaded area is subtracted from the sum of the probabilities of the individual sets.

5. $P(A \text{ or } B \text{ or } C) = P(A) + P(B) + P(C) - P(A \text{ and } B) - P(A \text{ and } C) - P(B \text{ and } C) + P(A \text{ and } B \text{ and } C)$

Reteach

1. a. $\dfrac{10}{13}$

b. $\dfrac{1}{13}$

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