



Lessons 13.1–13.4

MULTIPLE CHOICE

1. **SURVEY** A study surveyed 100 male and 100 female 13-year-olds, and 100 male and 100 female 15-year-olds. The table shows the numbers of those surveyed who eat fruit every day. For which of the following groups is a randomly selected person most likely to eat fruit every day? **TEKS 8.11.B**

	13-year-olds	15-year-olds
Male	60	53
Female	61	58

- (A) 15-year-old females
 (B) 13-year-old males
 (C) 13-year-olds
 (D) 15-year-old males
2. **BASKETBALL** In NCAA women's basketball tournaments from 1982 to 2003, the teams seeded, or ranked, number one have won 283 games and lost 71 games in the tournament. Find the probability that a team, chosen at random from all those that have been seeded number one, lost a game in the tournament. **TEKS 8.11.B**
- (F) $\frac{71}{354}$ (G) $\frac{71}{283}$ (H) $\frac{212}{283}$ (J) $\frac{283}{354}$
3. **WEATHER** A meteorologist reports that there is a 15% chance of snow tomorrow. What are the odds in favor of snow tomorrow? **TEKS 8.11.B**
- (A) 3:17 (B) 17:3
 (C) 20:3 (D) 15:1
4. **PRO SPORTS** In the United States, there are 21 states with teams in the National Football League and 17 states with Major League Baseball teams. There are 15 states that have both types of teams. What is the probability that a state chosen at random has either a team in the National Football League or a Major League Baseball team? **TEKS 8.11.B**
- (F) 23% (G) 38%
 (H) 46% (J) 76%

5. **OMELET** You are ordering an omelet with two ingredients. You can choose your ingredients from the following list: cheese, mushrooms, onions, tomatoes, peppers, sausage, ham, steak. How many possible omelets can you choose? **TEKS 8.11.B**

(A) 15 (B) 28 (C) 56 (D) 64

6. **TALENT SHOW** Your friend is competing in a talent show. There are 5 contestants in the show, and the order of the contestants is determined randomly. You are running late and will miss the first 2 contestants. What is the probability that you will *not* miss your friend's performance? **TEKS 8.11.A**

(F) 30% (G) 36%
 (H) 60% (J) 80%

7. **SUNKEN TREASURE** You hear a rumor that there is a sunken treasure located in the ocean within a 2 mile radius of a small island. You buy diving gear and begin to search for the treasure. With one tank of oxygen, you can thoroughly search an area of approximately 0.5 square mile. You have 3 oxygen tanks to use. If the rumor is true, what is the approximate probability that you will find the treasure? **TEKS 8.11.A**

(A) 4.0% (B) 11.9%
 (C) 23.9% (D) 75.0%



GRIDDED ANSWER 0 1 2 3 4 5 6 7 8 9

8. **CD CLUB** A music club gives you 6 free CDs for joining. You would like to own 11 of the free CDs that are offered. How many combinations of 6 CDs from the 11 CDs can you choose? **TEKS 8.11.B**

9. **SEEDS** A package of seeds claims that each seed has a 40% chance of sprouting if planted in optimal conditions. If you plant 3 of the seeds under optimal conditions, what is the probability (in decimal form) that all 3 seeds sprout? **TEKS 8.11.A**