LESSON MAKER PRO

Outcome Detective

List every result that could happen.

GRADE 7 · MA.7.DP.2.1

MA.7.DP.2.1 "Determine the sample space for a simple experiment."

NAME _____ DATE _____

THE BIG IDEA

The sample space is the set of every outcome that could happen in one experiment. List each possible recorded result once, even if some results are more likely than others. Write the outcomes in braces, separated by commas.

WORKED EXAMPLE

One card is drawn from cards numbered 11, 13, and 15. Determine the sample space.

1. Identify what is recorded: the number on the card.
2. List every number that could be drawn: 11, 13, 15.
3. Use braces to show the set of outcomes.

Answer: S = {11, 13, 15}

PRACTICE 6 problems

1 A coin is flipped once. Determine the sample space.

ANSWER _____

2 A standard number cube with faces numbered 1 through 6 is rolled once. Determine the sample space.

ANSWER _____

3 A spinner has four sections labeled red, blue, green, and yellow. It is spun once. Determine the sample space.

ANSWER _____

4 One tile is drawn from tiles labeled 2, 4, 6, and 8. Determine the sample space.

ANSWER _____

5 A student randomly chooses one marker from a cup containing markers labeled P, Q, R, and S. The recorded outcome is the marker label. Determine the sample space.

ANSWER _____

6 A random-number generator chooses one whole number from 20 through 23. Determine the sample space.

ANSWER _____

APPLY IT Show your work

1 During a lunch-table game, a digital spinner has sections labeled Skip, Trade, Bonus, and Double. It is spun once. Determine the sample space.

WORK SPACE

ANSWER _____

2 For a student council poster vote, an app randomly displays one badge design: Circle, Star, or Wave. Determine the sample space for one display.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Four tickets are in a box. Two say WIN, one says TRY AGAIN, and one says BONUS. One ticket is drawn, and the words are recorded. Determine the sample space. Explain why WIN appears only once in your sample space.

WORK SPACE AND ANSWER

ANSWER KEY

Outcome Detective

GRADE 7 · MA.7.DP.2.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A coin is flipped once. Determine the sample space.	**S = {heads, tails}**
2	A standard number cube with faces numbered 1 through 6 is rolled once. Determine the sample space.	**S = {1, 2, 3, 4, 5, 6}**
3	A spinner has four sections labeled red, blue, green, and yellow. It is spun once. Determine the sample space.	**S = {red, blue, green, yellow}**
4	One tile is drawn from tiles labeled 2, 4, 6, and 8. Determine the sample space.	**S = {2, 4, 6, 8}**
5	A student randomly chooses one marker from a cup containing markers labeled P, Q, R, and S. The recorded outcome is the marker label. Determine the sample space.	**S = {P, Q, R, S}**
6	A random-number generator chooses one whole number from 20 through 23. Determine the sample space.	**S = {20, 21, 22, 23}**

PART 2 · APPLY IT

1. **S = {Skip, Trade, Bonus, Double}** List each label where the spinner could stop. Each label is one possible outcome.
2. **S = {Circle, Star, Wave}** The app can display any one of the three design names. List all three names once.

CHALLENGE

S = {WIN, TRY AGAIN, BONUS}. WIN appears once because the recorded outcome is the word on the ticket, and both WIN tickets give the same recorded result.

Accept outcomes in any order, with or without the label S, if the student gives a complete set or clear list. In the challenge, accept explanations that identify WIN as one recorded outcome even though two tickets have that word.