

Unit 8: Probability and Sampling



Family Resources for Math 7 Unit 8: Probability and Sampling

Math for Fun

Math is more than a collection of formulas or procedures—it's an opportunity to think, explore, and even have fun. When approached with curiosity, mathematics becomes a space for the discovery of patterns and meaningful connections. Games and puzzles are especially powerful tools because they encourage students to think strategically, make decisions, and learn from trial and error. As players test strategies, recognize patterns, and adapt their thinking, they naturally strengthen important mathematical skills such as reasoning, problem-solving, and perseverance. For middle school students, activities like logic puzzles (such as Sudoku or KenKen), number games (like 24 or Math Bingo), and strategy games (including chess, checkers, or digital math games) can make learning both engaging and effective. By incorporating these playful challenges, math shifts from a routine task into an experience that builds confidence, sharpens thinking, and fosters a lasting appreciation for how math works in the world.

Here are some games and puzzles that involve mathematical thinking:

- Online 24 Game - <https://online24game.com/>
- Nerdle - <https://nerdlegame.com/>
- Solve Me Puzzles - <https://solveme.edc.org/>

For additional information and resources to support at home, please visit the [Office of Mathematics website](#).



Big Ideas in Unit 8

Within this unit, students will learn these big ideas:

- Probabilities of Single-Step Events
- Sampling
- Using Samples

For more details about this unit, see [Unit 8 Family Resources](#).



Lesson Specific Resources

Use the links below to learn about the learning from each lesson.

Lesson Link
<u>8.1 Mystery Bags</u>
<u>8.2 Chance Experiments</u>
<u>8.3 What Are Probabilities?</u>
<u>8.4 Estimating Probabilities through Repeated Experiments</u>
<u>8.5 More Estimating Probabilities</u>
<u>8.6 Estimating Probabilities Using Simulation</u>
<u>8.11 Comparing Groups</u>
<u>8.12 Larger Populations</u>
<u>8.13 What Makes a Good Sample?</u>
<u>8.14 Sampling in a Fair way</u>
<u>8.15 Estimating Population Measures of Center</u>
<u>8.16 Estimating Population Proportions</u>
<u>8.17 More about Sampling Variability</u>
<u>8.18 Comparing Populations Using Samples</u>
<u>8.19 Comparing Populations with Friends</u>
<u>8.20 Memory Test</u>