

Unit 8: Data Sets, Distributions, and Sampling



Family Resources for Math 6/7A Unit 8: Data Sets, Distributions, 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://solve.me.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:

- Dot Plots and Histograms
- Measures of Center and Variability
- Sampling
- Probability

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
8.1 Representing Data.
8.2 Using Dot Plots to Answer Statistical Questions
8.3 Interpreting Histograms
8.4 The Mean
8.5 Variability and MADL inks to an external site.
8.6 The Median
8.7 Box Plots and Interquartile Range
8.8 Larger Populations
8.9 What Makes a Good Sample?
8.10 Sampling in a Fair Waylins to an external site.
8.11 Estimating Population Measures of Center
8.12 More about Sampling Variability.
8.13 What Are Probabilities?
8.14 Estimating Probabilities through Repeated Experiments