

7th grade New York State Standards
“Batter Up”

Problem Solving

7.PS.1 Use a variety of strategies to understand new mathematical content and to develop more efficient methods

7.PS.2 Construct appropriate extensions to problem situations

7.PS.3 Understand and demonstrate how written symbols represent mathematical ideas

7.PS.7 Understand that there is no one right way to solve mathematical problems but that different methods have advantages and disadvantages

7.PS.8 Understand how to break a complex problem into simpler parts or use a similar problem type to solve a problem

7.PS.9 Work backwards from a solution

7.PS.10 Use proportionality to model problems

7.PS.11 Work in collaboration with others to solve problems

7.PS.12 Interpret solutions within the given constraints of a problem

7.PS.13 Set expectations and limits for possible solutions

7.PS.14 Determine information required to solve the problem

7.PS.15 Choose methods for obtaining required information

7.PS.16 Justify solution methods through logical argument

Reasoning and Proof

7.RP.3 Evaluate conjectures by distinguishing relevant from irrelevant information to reach a conclusion or make appropriate estimates

Communication

7.CM.1 Provide a correct, complete, coherent, and clear rationale for thought process used in problem solving

7.CM.2 Provide an organized argument which explains rationale for strategy selection

7.CM.5 Answer clarifying questions from others

7.CM.6 Analyze mathematical solutions shared by others

7.CM.7 Compare strategies used and solutions found by others in relation to their own work

7.CM.10 Use appropriate language, representations, and terminology when describing objects, relationships, mathematical solutions, and rationale

Connection

7.CN.1 Understand and make connections among multiple representations of the same mathematical idea

7.CN.2 Recognize connections between subsets of mathematical ideas

7.CN.3 Connect and apply a variety of strategies to solve problems

7.CN.6 Recognize and provide examples of the presence of mathematics in their daily lives

7.CN.7 Apply mathematical ideas to problem situations that develop outside of mathematics

7.CN.8 Investigate the presence of mathematics in careers and areas of interest

7.CN.9 Recognize and apply mathematics to other disciplines, areas of interest, and societal issues

Representation

7.R.2 Explain, describe, and defend mathematical ideas using representations

7.R.3 Recognize, compare, and use an array of representational forms

7.N.12 Add, subtract, multiply, and divide integers

7.N.13 Add and subtract two integers (with and without the use of a number line)

7.S.7 Identify and explain misleading statistics and graphs