

# FIFTH GRADE

*COMMON CORE*

*MATH*

*AND*

*ENGLISH LANGUAGE ARTS*

*OVERVIEW*

*FOR PARENTS*

## Mathematics | Standards for Mathematical Practice for All Grades

The Standards for Mathematical Practice describe behaviors that all students will develop in the Common Core Standards. These practices rest on important “processes and proficiencies” including problem solving, reasoning and proof, communication, representation, and making connections. These practices will allow students to understand and apply mathematics with confidence.

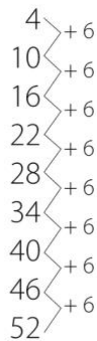
- Make sense of problems and persevere in solving them.
  - Find meaning in problems
  - Analyze, predict and plan solution pathways
  - Verify answers
  - Ask themselves the question: “Does this make sense?”
  
- Reason abstractly and quantitatively.
  - Make sense of quantities and their relationships in problems
  - Create coherent representations of problems
  
- Construct viable arguments and critique the reasoning of others.
  - Understand and use information to construct arguments
  - Make and explore the truth of conjectures
  - Justify conclusions and respond to arguments of others
  
- Model with mathematics.
  - Apply mathematics to problems in everyday life
  - Identify quantities in a practical situation
  - Interpret results in the context of the situation and reflect on whether the results make sense
  
- Use appropriate tools strategically.
  - Consider the available tools when solving problems

- Are familiar with tools appropriate for their grade or course ( pencil and paper, concrete models, ruler, protractor, calculator, spreadsheet, computer programs, digital content located on a website, and other technological tools)
  
- Be precise.
  - Communicate precisely to others
  - Use clear definitions, state the meaning of symbols and are careful about specifying units of measure and labeling axes
  - Calculate accurately and efficiently
  
- Look for and make use of structure.
  - Discern patterns and structures
  - Can step back for an overview and shift perspective
  - See complicated things as single objects or as being composed of several objects
  
- Look for and identify ways to create shortcuts when doing problems.
  - When calculations are repeated, look for general methods, patterns and shortcuts
  - Be able to evaluate whether an answer makes sense

## Grade 5 Overview | Mathematics

Fifth grade students finalize fluency with multi-digit addition, subtraction, multiplication, and division. They apply their understanding of fractions to the addition and subtraction of fractions with unlike denominators, the concept of fraction multiplication and division, and decimal addition and subtraction. They analyze numeric patterns and relationships and graph ordered pairs on a coordinate plane. Students build on their understanding of geometry by recognizing attributes of geometrical shapes and calculating inside angle measurement and area of triangles and parallelograms.

- Write and interpret numerical expressions using parentheses, brackets, or braces
  - “Add 8 and 7, then multiply by 2” is  $2(8 + 7)$
- Express a whole number ( $2 - 50$ ) as a product of its prime factors
- Describe more complex patterns by seeing the change



- Understand the place value system from thousandths to millions
- Fluently multiply multi-digit numbers using the standard algorithm
- Divide multi-digit numbers by two-digit divisors
- Read, write, and compare decimals to the thousandths
- Round decimals to any place
- Compute with multi-digit whole numbers and numbers with decimals to the hundredths

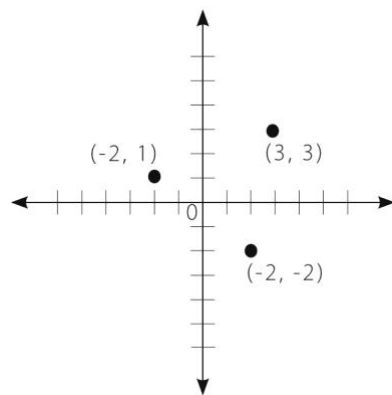
$$\begin{array}{r} 423.12 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8943.43 \\ + 17.50 \\ \hline \end{array}$$

$$5 \overline{) 25.75}$$

$$100 - 42.11 =$$

- Add and subtract fractions with unlike denominators
- Multiply fractions and mixed numbers  
(continued)
- Divide unit fractions by whole numbers and whole numbers by unit fractions
- Convert measurements and use in problem solving
  - 0.05 m = 5 cm or 2.5 feet = 30 inches
- Organize and explain data using a line plot
- Understand and find the volume of rectangular prisms
- Analyze number patterns
- Graph points on a coordinate graph



- Show a graph with an x and y axis with several points labeled by their coordinates
- Sort two-dimensional shapes into categories based on their properties
- Know what makes rectangles, parallelograms, and trapezoids different
- Know the inside sum of the angles of a triangle (180 degrees) and a quadrilateral (360 degrees)
- Be able to find the area of a triangle and parallelogram by knowing and understanding the formula for area of these shapes

## **Grade 5 Overview | English Language Arts**

Fifth grade students build on their ability to read longer words, using roots, prefixes, and suffixes to determine the meaning of unknown words. Students explain how an author supports points in a text. They use quotes accurately when referring to the text. Students keep the audience in mind and include a clear sequence of events when writing. Students listen to a speaker or media source and identify reasons and evidence provided to support particular points. They identify and discuss misleading ideas.

### **Reading**

- Quote accurately when referring to text
- Determine the main ideas and summarize the text
- Compare and contrast texts
- Explain how an author uses reason or evidence to support points in a text

### **Reading: Foundational Skills**

- Use grade-level phonics and word analysis skills
  - Roots, prefixes, and suffixes
- Read with accuracy and fluency

### **Writing**

- Write opinion pieces that support a point of view with reasons and information
- Write informative texts that share ideas and information
- Write narratives that use related descriptive details and a clear sequences of events
- Write clearly and with a purpose; keep the audience in mind
- Use technology to publish writing; type two pages in a single sitting

### **Speaking and Listening**

- Summarize information presented
- Identify reasons and evidence a speaker or media source provides to support particular points
- Identify and discuss misleading ideas
- Plan and deliver a speech
- Deliver a memorized poem or section of a speech
- Use expression and gestures

## Language

- Use correct grammar
- Use verb tenses correctly
  - Yesterday I *walked*
  - Today I *walk*
  - Tomorrow I *will walk*
- Use correct capitalization, punctuation, and spelling
- Use punctuation to separate items in a series/list
- Use underlining, quotation marks, or italics in a title
- Vary sentence length and style
- Compare and contrast styles used in literature
- Use a variety of methods to determine the meaning of an unknown word

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