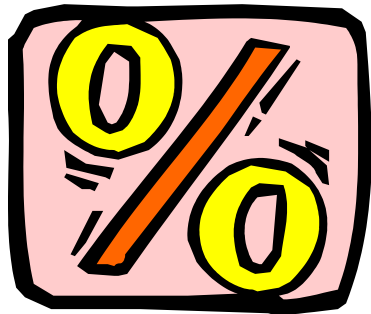


1.0

# NUMBER SENSE

Students compute with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents.

They understand the relative magnitudes of numbers.



Fifth Grade Math Content Standard

**1.0**

# NUMBER SENSE

Students compute with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents. They understand the relative magnitudes of numbers.

Fifth Grade Math Content Standard



# NUMBER SENSE

Estimate, round, and manipulate very large (e.g., millions) and very small (e.g., thousandths) numbers.

# 1.2

## NUMBER SENSE

Interpret percents as a part of a hundred;  
find decimal and percent equivalents  
for common fractions and  
explain why they represent the same value;  
compute a given percent of a whole number.

**1.3**

# NUMBER SENSE

Understand and compute positive integer powers of nonnegative integers; compute examples as repeated multiplication.

# 1.4

## NUMBER SENSE

Determine the prime factors  
of all numbers through 50  
and write the numbers as the product  
of their prime factors  
by using exponents  
to show multiples of a factor  
(e.g.,  $24 = 2 \times 2 \times 2 \times 3 = 2^3 \times 3$ ).

**1.5**

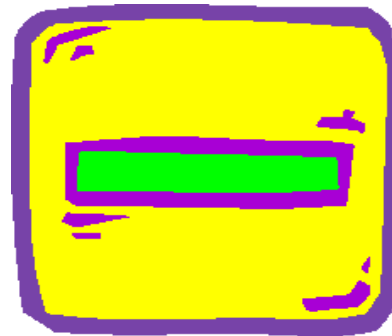
# NUMBER SENSE

Identify and represent on a number line decimals, fractions, mixed numbers, and positive and negative integers.

2.0

# NUMBER SENSE

Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals.



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**2.0**

# NUMBER SENSE

Students perform calculations  
and solve problems  
involving addition, subtraction,  
and simple multiplication and division  
of fractions and decimals.

Fifth Grade Math Content Standard

# 2.1

# NUMBER SENSE

Add, subtract, multiply, and divide  
with decimals;  
add with negative integers;  
subtract positive integers from negative  
integers;  
and verify the reasonableness of the results.

**2.2**

# NUMBER SENSE

Demonstrate proficiency with division, including division with positive decimals and long division with multidigit divisors.

**2.3**

## NUMBER SENSE

Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.

**2.4**

# NUMBER SENSE

Understand the concept  
of multiplication and division of fractions.

**2.5**

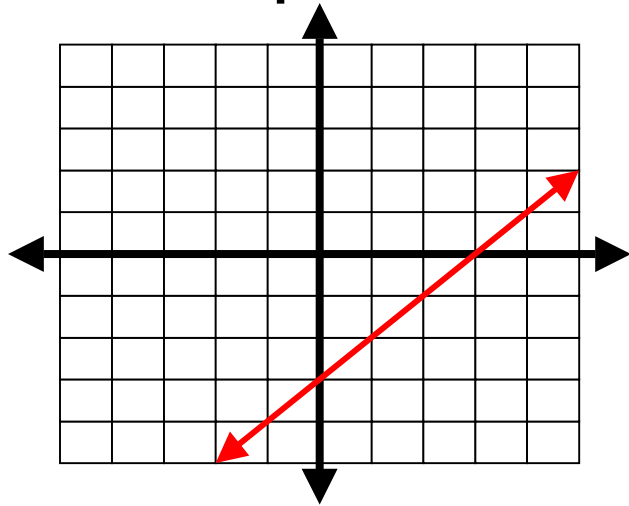
# NUMBER SENSE

Compute and perform simple multiplication and division of fractions and apply these procedures to solving problems.

1.0

# ALGEBRA AND FUNCTIONS

Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results.



$$y = x - 3$$

Fifth Grade Math Content Standard

**1.0**

# ALGEBRA AND FUNCTIONS

Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results.

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# ALGEBRA AND FUNCTIONS

Use information taken  
from a graph or equation  
to answer questions  
about a problem situation.

**1.2**

# ALGEBRA AND FUNCTIONS

Use a letter to represent an unknown number;  
write and evaluate  
simple algebraic expressions  
in one variable  
by substitution.

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**1.3**

# ALGEBRA AND FUNCTIONS

Know and use the distributive property in equations and expressions with variables.

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1.4

# ALGEBRA AND FUNCTIONS

Identify and graph ordered pairs  
in the four quadrants  
of the coordinate plane.

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**1.5**

# ALGEBRA AND FUNCTIONS

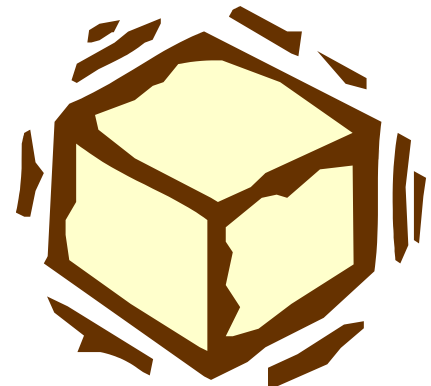
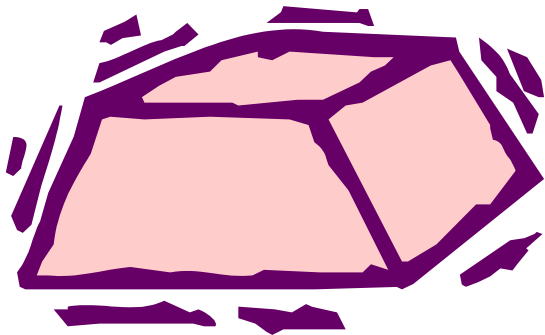
Solve problems involving  
linear functions with integer values;  
write the equation;  
and graph  
the resulting ordered pairs  
of integers on a grid.

Fifth Grade Math Content Standard

1.0

# MEASUREMENT AND GEOMETRY

Students understand and compute  
the volumes and areas  
of simple objects.



Fifth Grade Math Content Standard

1.0

# MEASUREMENT AND GEOMETRY

Students understand and compute  
the volumes and areas  
of simple objects.

Fifth Grade Math Content Standard



# MEASUREMENT AND GEOMETRY

Derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram).

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1.2

# MEASUREMENT AND GEOMETRY

Construct a cube and rectangular box from two-dimensional patterns and use these patterns to compute the surface area for these objects.

1.3

# MEASUREMENT AND GEOMETRY

Understand the concept of volume and use the appropriate units in common measuring systems (i.e., cubic centimeter [ $\text{cm}^3$ ], cubic meter [ $\text{m}^3$ ], cubic inch [ $\text{in}^3$ ], cubic yard [ $\text{yd}^3$ ]) to compute the volume of rectangular solids.

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1.4

# MEASUREMENT AND GEOMETRY

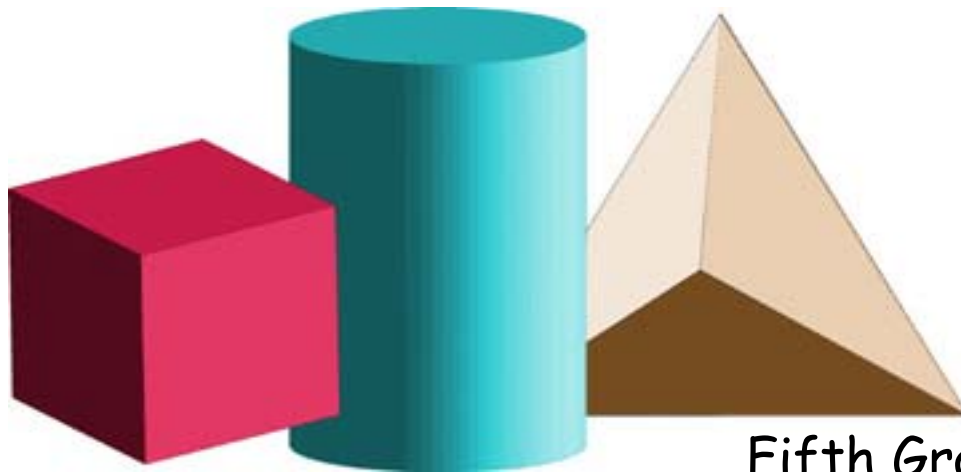
Differentiate between,  
and use appropriate units of measures for,  
two-and three-dimensional objects  
(i.e., find the perimeter, area, volume).

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2.0

# MEASUREMENT AND GEOMETRY

Students identify, describe,  
and classify the properties of,  
and the relationships between,  
plane and solid geometric figures.



Fifth Grade Math Content Standard

**2.0**

# MEASUREMENT AND GEOMETRY

Students identify, describe,  
and classify the properties of,  
and the relationships between,  
plane and solid geometric figures.

Fifth Grade Math Content Standard

**2.1**

# MEASUREMENT AND GEOMETRY

Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools (e.g., straightedge, ruler, compass, protractor, drawing software).

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2.2

# MEASUREMENT AND GEOMETRY

Know that the sum of the angles  
of any triangle is  $180^\circ$   
and the sum of the angles  
of any quadrilateral is  $360^\circ$   
and use this information  
to solve problems.

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2.3

# MEASUREMENT AND GEOMETRY

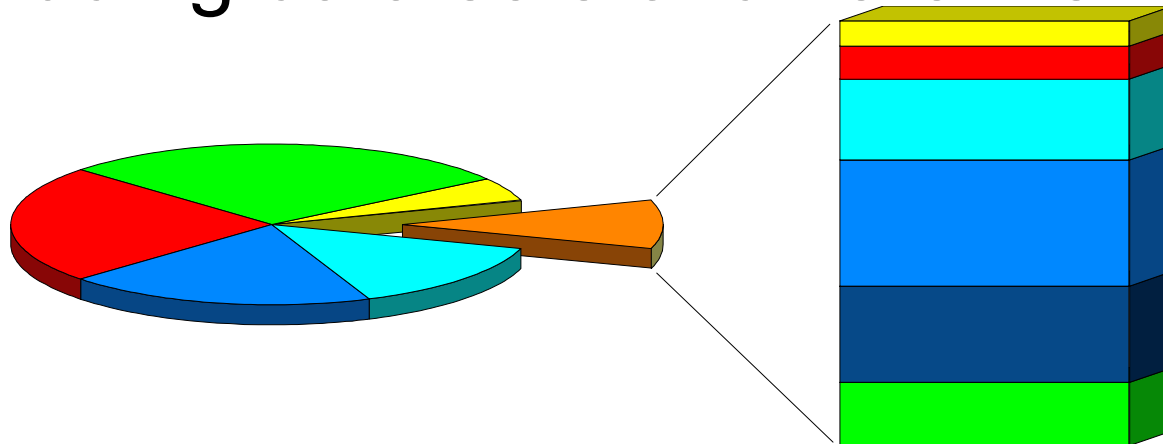
Visualize and draw  
two-dimensional views  
of three-dimensional objects  
made from rectangular solids.

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1.0

# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Students display, analyze, compare, and interpret different data sets, including data sets of different sizes.



Fifth Grade Math Content Standard

1.0

# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Students display, analyze, compare,  
and interpret different data sets,  
including data sets of different sizes.

Fifth Grade Math Content Standard



# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Know the concepts of mean, median, and mode; compute and compare simple examples to show that they may differ.

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1.2

# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for various data sets.

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1.3

# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Use fractions and percentages  
to compare data sets of different sizes.

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1.4

# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Identify ordered pairs of data from a graph and interpret the meaning of the data in terms of the situation depicted by the graph.

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1.5

# STATISTICS, DATA ANALYSIS, AND PROBABILITY

Know how to write ordered pairs correctly;  
for example,  $(x, y)$ .

1.0

# MATHEMATICAL REASONING

Students make decisions about how to approach problems.



Fifth Grade Math Content Standard

1.0

# MATHEMATICAL REASONING

Students make decisions  
about how to approach problems.

Fifth Grade Math Content Standard



# MATHEMATICAL REASONING

Analyze problems  
by identifying relationships, distinguishing  
relevant from irrelevant information,  
sequencing and prioritizing information,  
and observing patterns.

1.2

# MATHEMATICAL REASONING

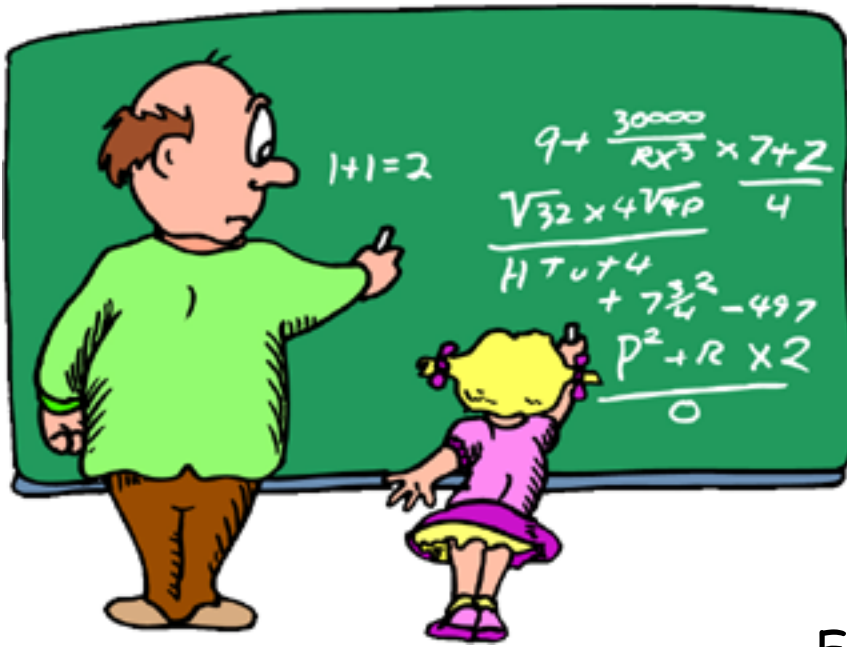
Determine when and how  
to break a problem into simpler parts.

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2.0

# MATHEMATICAL REASONING

Students use strategies, skills, and concepts in finding solutions.



Fifth Grade Math Content Standard

**2.0**

# MATHEMATICAL REASONING

Students use strategies, skills,  
and concepts in finding solutions.

Fifth Grade Math Content Standard

**2.1**

# MATHEMATICAL REASONING

Use estimation to verify  
the reasonableness of calculated results.

Fifth Grade Math Content Standard

**2.2**

# MATHEMATICAL REASONING

Apply strategies and results  
from simpler problems  
to more complex problems.

Fifth Grade Math Content Standard

**2.3**

# MATHEMATICAL REASONING

Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

**2.4**

# MATHEMATICAL REASONING

Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

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**2.5**

# MATHEMATICAL REASONING

Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.

**2.6**

# MATHEMATICAL REASONING

Make precise calculations  
and check the validity of the results  
from the context of the problem.

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3.0

# MATHEMATICAL REASONING

Students move beyond a particular problem by generalizing to other situations.



Fifth Grade Math Content Standard

**3.0**

# MATHEMATICAL REASONING

Students move beyond a particular problem by generalizing to other situations.

Fifth Grade Math Content Standard

**3.1**

# MATHEMATICAL REASONING

Evaluate the reasonableness of the solution  
in the context of the original situation.

**3.2**

# MATHEMATICAL REASONING

Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.

**3.3**

# MATHEMATICAL REASONING

Develop generalizations  
of the results obtained  
and apply them  
in other circumstances.