

MATHEMATICS

Grade 6 mathematics -

Number and Operations:

Understanding and comparing rational numbers (fractions, decimals, and percents)

Operations with rational numbers (adding, subtracting, multiplying, and dividing)

Understanding and solving problems with integers

Algebra:

Understanding and using expressions and equations

Understanding and solving one-step and two-step equations

Understanding and graphing linear equations and inequalities

Geometry:

Understanding and identifying types of triangles, angles, quadrilaterals, and polygons

Understanding and calculating the area and perimeter of two-dimensional shapes

Understanding and identifying types of three-dimensional shapes

Understanding and calculating the volume and surface area of three-dimensional shapes

Measurement:

Understanding and converting units of measurement for length, weight, and capacity

Understanding and calculating rates, ratios, and proportions involving measurement units

Understanding and using the metric system

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Data Analysis and Probability:

Understanding and interpreting data from tables, graphs, and charts

Understanding and calculating measures of central tendency (mean, median, mode)

Understanding and calculating probabilities of events

Problem Solving:

Applying mathematical reasoning and problem-solving strategies to solve problems

Understanding and using multiple problem-solving strategies (e.g., make a table, work backwards, draw a picture)

Understanding and solving multi-step problems

Ratios and Proportions:

Understanding and using rates and unit rates

Understanding and solving problems with percent change

Understanding and using scale factors to solve problems involving similar figures

Data Analysis and Probability:

Understanding and calculating measures of variability (range, interquartile range)

Understanding and using scatterplots to analyze data

Understanding and using statistical inference to make predictions and draw conclusions

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Mathematical Practices:

Applying the mathematical practices (problem-solving, reasoning, communicating, modeling, using tools) to solve problems and analyze data

Ratios and Proportional Relationships:

Understanding and using proportional relationships to solve problems involving scale drawings and maps

Understanding and solving problems with direct and inverse variation

Understanding and calculating percent change

Statistics and Probability:

Understanding and using statistical measures to compare data sets

Understanding and using scatter plots to analyze data

Understanding and calculating probabilities of compound events

