Math 6

Number Sense

Demonstrate an understanding of place value, including numbers that are:

greater than one million
less than one thousand

Solve problems involving whole numbers and decimal numbers.

Understand, recall and apply multiplication and related division facts to 9 x 9.

Demonstrate an understanding of factors and multiples by:

determining multiples and factors of numbers less than 100
identifying prime and composite numbers
solving problems using multiples and factors.

Relate improper fractions to mixed numbers and mixed numbers to improper fractions.

Demonstrate an understanding of ratio, concretely, pictorially and symbolically.

Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially and symbolically.

Demonstrate an understanding of integers, concretely, pictorially and symbolically.

Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors).

Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers).

Patterns and Relations

Represent and describe patterns and relationships, using graphs and tables.

Demonstrate an understanding of the relationships within tables of values to solve problems.

Represent generalizations arising from number relationships, using equations with letter variables.

Express a given problem as an equation in which a letter variable is used to represent an unknown number.

Demonstrate and explain the meaning of preservation of equality, concretely and pictorially.

Statistics and Probability

Create, label and interpret line graphs to draw conclusions.

Select, justify and use appropriate methods of collecting data, including:

questionnaires
experiments
databases
electronic media.

Graph collected data, and analyze the graph to solve problems.

Demonstrate an understanding of probability by:

identifying all possible outcomes of a probability experiment
differentiating between experimental and theoretical probability
determining the theoretical probability of outcomes in a probability experiment
determining the experimental probability of outcomes in a probability experiment
comparing experimental results with the theoretical probability for an experiment.

Shape and Space

Demonstrate an understanding of angles by:

identifying examples of angles in the environment
classifying angles according to their measure
estimating the measure of angles, using 45°, 90° and 180° as reference angles
determining angle measures in degrees
drawing and labelling angles when the measure is specified.

Demonstrate that the sum of interior angles is:

180° in a triangle
360° in a quadrilateral.

Develop and apply a formula for determining the:

perimeter of polygons
area of rectangles
volume of right rectangular prisms.

Construct and compare triangles, including:

scalene
isosceles
equilateral
right
obtuse
acute
in different orientations.

Perform a combination of translations, rotations and/or reflections on a single 2-D shape, with and without technology, and draw and describe the image.

Perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations.

Identify and plot points in the first quadrant of a Cartesian plane, using whole number ordered pairs.

Perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole number vertices).