

GRADE 8

Number Sense and Numeration:

- Show and order rational numbers
- Show numbers using exponential notation
- Solve multi-step problems involving whole numbers and decimals
- Multiply and divide fractions and integers
- Multiply and divide decimals by powers of ten
- Apply order of operations in expressions with brackets and exponents
- Solve problems involving percents to one decimal place and percents greater than 100
- Solve problems involving rates and proportions

Measurement:

- Convert between cubic centimetres and cubic metres and between millilitres and cubic centimetres
- Develop circumference and area relationships for a circle
- Develop and apply the formula for the volume of a cylinder
- Determine and apply surface-area relationships for cylinders

Geometry and Spatial Sense:

- Sort quadrilaterals by geometric properties involving diagonals
- Build circles
- Investigate relationships among similar shapes
- Determine and apply angle relationships for parallel and intersecting lines
- Relate the numbers of faces, edges, and vertices of a polyhedron
- Determine and apply the Pythagorean relationship geometrically
- Plot the image of a point on the coordinate plane after applying a transformation

Patterning and Algebra:

- Show the general term in a linear sequence, using one or more algebraic expressions
- Translate statements, using algebraic equations
- Find the term number in a pattern algebraically when given any term
- Solve linear equations involving one variable terms with integer solutions using a “balance” model

Data Management and Probability:

- Collect categorical, discrete, and continuous data
- Organize data into intervals
- Display data using histograms and scatter plots
- Use measures of central tendency to compare sets of data
- Compare two attributes using data management tools
- Compare experimental and theoretical probabilities
- Calculate the probability of complementary events

