

# North Dakota Priority Standards and Proficiency Scales

MATHEMATICS  
Priority Standards

## GRADE 6

Domain	Code	Standard Description	Essential Vocabulary
Expressions and Equations	6.EE.1	Write and evaluate numerical expressions involving whole-number exponents	numerical expression, exponent
	6.EE.2	Write, read, and evaluate expressions in which letters stand for numbers. a) Write expressions that record operations with numbers and with letters standing for numbers. b) Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient, difference, quantity, etc.); view one or more parts of an expression as a single entity. c) Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).	coefficient, variable
	6.EE.4	Identify when two expressions are equivalent.	equivalent
	6.EE.5	Understand solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	substitution
Geometry	6.G.1	Based on prior knowledge of area of rectangles, decompose or compose triangles to find the area of a triangle. Using knowledge of area of triangles and rectangles, compose and/or decompose triangles, special quadrilaterals, and polygons to find their areas. Apply these techniques in the context of solving real world mathematical problems.	decompose, compose
	6.G.2	Using cubes of an appropriate size, pack a right rectangular prism having fractional edge lengths to find its volume. Then show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = \ell wh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real world and mathematical problems.	volume, prism



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The Number System	6.NS.1	Use visual fraction models and equations to interpret and compute quotients of fractions. Use models and equations to solve word problems involving division of fractions by fractions.	quotient, reciprocal
	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using strategies flexibly, including the standard algorithm for each operation.	algorithm
Ratios and Proportional Relationships	6.RP.3 a, b, c,d	Use tables of equivalent ratios, tape diagrams, double number line diagrams, and equations to reason about ratios and rates in real world and mathematical problems. <ul style="list-style-type: none"> <li>a) Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</li> <li>b) Solve unit rate problems including those involving unit pricing and constant speed.</li> <li>c) Find a percent of a quantity as a rate per 100. Solve problems involving finding the whole, given a part and the percent.</li> <li>d) Use ratio reasoning to convert measurement units. Manipulate and transform units appropriately when multiplying or dividing quantities.</li> </ul>	equivalent ratio, double numberline, tape diagram, percent, unit rate, percent, rate
Statistics and Probability	6.SP.5	Summarize numerical data sets in relation to their context by: <ul style="list-style-type: none"> <li>a) Reporting the number of observations.</li> <li>b) Describing the nature of the attribute being investigated, including how it was measured and its units of measurement.</li> <li>c) Calculating quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered.</li> <li>d) Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.</li> </ul>	mean, median, mode, variability, deviation, quartile

