Post Falls School District #273
Idaho State Achievement Standards – Math Checklist, Grade 8

Student Name: _____

Number and Operation

____ **Compare rational numbers including integers, fractions, decimals, percents and absolute value; Denote position on number line.**
____ Apply concepts of:
  ____ Least Common Multiple
  ____ Greatest Common Factor
  ____ Prime Factorization
  ____ Prime & Composite
____ **Add rational numbers**
____ **Subtract rational numbers**
____ **Multiply rational numbers**
____ **Divide rational numbers**
____ **Evaluate numerical expressions with rational number using the order of operations**
____ **Evaluate numerical expressions whole number exponents**
____ Recall the common equivalent fractions, decimals, and percents halves, thirds, fourth, and tenths.

Algebra

____ **Use symbols (<,>,=,≤,≥,≠) to express relationships.**
____ Familiarity with variables in expressions, equations, and inequalities.
____ **Translate statements and story problems into algebraic expressions and equations given a formula.**
____ Translate basic statements and story problems into self-derived expressions and equations
____ **Use and apply the following properties in evaluating algebraic expressions: commutative, associative, identity, zero, inverse, distributive.**
____ **Use the order of operations in evaluating simple algebraic expressions.**
____ **Use the order of operations in evaluating simple algebraic expressions.**
____ **Solve one- and two-step equations and inequalities.**
____ **Extend patterns and identify a rule that generates the pattern.**
____ **Match graphical representations with simple linear equations.**
_____ **Represent a simple set of data in a table, as a graph, and as an equation or expression.**
____ **Use patterns and linear functions to represent and solve problems.**

Geometry

____ Describe and classify relationships among types of one-, two-, and three-dimensional geometric figures.
____ **Draw and measure various angles and shapes.**
____ Identify and model the effects of reflections, translations, rotations, and scaling on various shapes.
____ **Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, and the volume and surface area of rectangular prisms.**
____ **Identify, construct, and relate properties, and relationships among points, lines, rays, planes, and angles.**
____ **Identify congruence, similarities, and line symmetry of shapes.**
____ **Identify and plot points on a coordinate plane.**

Data Analysis

____ **Analyze and interpret tables, charts, and graphs.**
____ **Collect, organize and display data in tables, charts, and graphs.**
____ **Explain and justify conclusions drawn from tables, charts, and graphs.**
_____ Model situations of probability using simulations.
____ Make predictions based on experimental and theoretical possibilities.
____ Recognize equally likely outcomes.
____ Conduct statistical experiments and interpret results using tables, charts, or graphs.

Problem Solving

____ **Solve problems using the 4-step process (QDSA or UPSC)**
____ **Solve problems involving area of circles and the perimeter and area of rectangles and triangles given the formula.**