

Integrated Math  
Fourth Nine Weeks

**Number, Number Sense  
and Operations**

**10 D1.** Connect physical, verbal and symbolic representations of irrational numbers; e.g., construct  $\sqrt{2}$  as a hypotenuse or on a number line.

**Measurement**

**9 D3.** Use the ratio of lengths in similar two-dimensional figures or three-dimensional objects to calculate the ratio of their areas or volumes respectively.

**9 D4.** Use scale drawings and right triangle trigonometry to solve problems that include unknown distances and angle measures.

**Geometry and Spatial Sense**

**10 A1.** Formally define and explain key aspects of geometric figures, including:

- a. interior and exterior angles of polygons;
- b. segments related to triangles (median, altitude, midsegment);
- c. points of concurrency related to triangles (centroid, incenter, orthocenter, circumcenter);
- d. circles (radius, diameter, chord, circumference, major arc, minor arc, sector, segment, inscribed angle).

**10 A6.** Identify the reflection and rotation symmetries of two- and three-dimensional figures.

**10 F8.** Derive coordinate rules for translations, reflections and rotations of geometric figures in the coordinate plane.

**Patterns, Functions and Algebra**

**9 F6.** Write and use equivalent forms of equations and inequalities in problem situations; e.g., changing a linear equation to the slope intercept form.

**9 L13.** Model and solve problems involving direct and inverse variation using proportional reasoning.

**9 L14.** Describe the relationship between slope and the graph of a direct variation and inverse variation.

**9 J15.** Describe how a change in the value of a constant in a linear or quadratic equation affects the related graphs.

**10 J9.** Recognize and explain that the slopes of parallel lines are equal and the slopes of perpendicular lines are negative reciprocals.