Expectations
1.1   The student will represent functions and relations numerically, graphically, and algebraically.
1.2   The student will describe and apply properties of functions and relations.
1.4   The student will use numerical, algebraic, and graphical representations of functions and relations in order to solve real-world problems.

Essential Question

How do rational functions model real-world problems and their solutions?

Enduring Understanding

The characteristics of rational functions and their representations are useful in solving real-world problems.

Indicators

1.1.PC.2   ***write a rational function or expression in an equivalent form, including partial fractions.***

1.1.PC.11   graph rational functions and describe their properties.

1.1.PC.12   ***graph rational functions and describe their properties, including limit theory as it applies to determining their asymptotes and removable discontinuities.***

1.2.PC.1   describe the properties of rational functions, including domain, range, continuity, end behavior, horizontal and vertical asymptotes.

1.2.PC.2   ***describe oblique asymptotes of rational functions.***

1.2.PC.6   identify and distinguish between the graphs of linear, quadratic, power, polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric functions.

1.4.PC.3   solve rational equations numerically, graphically, or algebraically.

1.4.PC.4   ***solve rational inequalities using a numeric method.***