Learning Goals & Success Criteria for MPM1D

1.1
Learning Goal: We are learning to relate rational numbers to decimals, fractions, and integers.

Success Criteria:
- I can identify rational and irrational numbers
- I can convert between decimals and fractions
- I can state the period and length of period of a repeating decimal

1.2
Learning Goal: We are learning to multiply and divide fractions.

Success Criteria:
- I can multiply fractions by reducing before OR after multiplying
- I can divide fractions by multiplying by the reciprocal of the divisor

1.3
Learning Goal: We are learning to add and subtract fractions by using a common denominator.

Success Criteria:
- I can find the common denominator between 2+ fractions
- I can create equivalent fractions using common denominators
- I can recognize that when adding/subtracting, only the numerator is added/subtracted

1.4
Learning Goal: We are learning to work with the Order of Operations

Success Criteria:
- I can BEDMAS
- I can solve multi-step questions using the proper order of operations
- I can safely substitute numbers into parentheses/brackets

1.5
Learning Goal: We are learning to collect, organize, analyze and display data

Success Criteria:
- I can analyze data using mean, median, and mode
- I can display data using percentages and pie charts

2.1

Learning Goal: We are learning common math terminology, and using those terms to simplify algebraic expressions.

Success Criteria:

- I can correctly define the following terms: expression, variable, coefficient, constant, like term, unlike term, monomial, binomial, trinomial, polynomial, and degree
- I can group like terms within algebraic expressions
- I can identify the degree and type of various polynomials

2.2

Learning Goal: We are learning to add and subtract polynomials.

Success Criteria:

- I can add/subtract polynomials by grouping like terms
- I can distribute the negative into a polynomial
- I can arrange polynomials in descending order

2.3

Learning Goal: We are learning to multiply with monomials.

Success Criteria:

- I can multiply like variables by adding the exponents
- I understand the difference between multiplying coefficients and multiplying variables
- I can use the distributive property to multiply a polynomial with a monomial

2.4

Learning Goal: We are learning to expand and simplify more complicated expressions.

Success Criteria:

- I can use the distributive property to multiply a polynomial with a monomial
- I can use the distributive property to combine multiple variables into a single term
- I can simplify a monomial raised to a power by multiplying the exponents of each variable
- I can recognize that when a coefficient is raised to a power, it is NOT NOT NOT multiplied
- I can understand that raising to the power of zero equals one.

2.5

Learning Goal: We are learning to divide by monomials.

Success Criteria:

- I can divide like variables by subtracting their exponents
- I can understand the difference between dividing coefficients and dividing variables
- I can divide the monomial into each term of a polynomial separately
- I can recognize that when you divide two identical monomials, the result is one.

3.1

Learning Goal: We are learning to solve one and two-step equations.

Success Criteria:

- I can solve equations using inverse operations
- I can check my answer by substituting my answer into the original equation

3.2

Learning Goal: We are learning to solve equations with variable on both sides.

Success Criteria:

- I can solve equations by grouping variables on one side of the equation, and constants on the other side of the equation

3.3

Learning Goal: We are learning to solve equations that contain brackets.

Success Criteria:

- I can use the distributive property to eliminate brackets, then solve the equation normally

3.4

Learning Goal: We are learning to solve equations that contain fractions.

Success Criteria:

- I can create equivalent fractions using a common denominator
- I can recognize that once every fraction has a common denominator, the denominator does not matter anymore
- I can then solve the equation using methods from prior lessons

3.5

Learning Goal: We are learning to solve inequalities.

Success Criteria:

- I can graph an inequality on a number line
- I can recognize what to do to an inequality when it is multiplied/divided by a negative
- I can recognize that solving an inequality follows the same rules as solving an equation

3.6

Learning Goal: We are learning to rearrange formulas to solve for a given variable.

Success Criteria:

- I can identify the variable that I am trying to solve
- I can rearrange a formula by using inverse operations
- I can use the rearranged formula to answer the question