MPM 1D Chapters 1 - 3 Exam Review

Chapter One

Section 1.1 **Adding and Subtracting Fractions**

You must have a common denominator to add and subtract.

Work on p. 16 # 5a, 7a

Section 1.2 **Multiplying and Dividing Fractions**

1. You must change fraction to improper before multiplying or dividing.
2. To divide, multiply by the reciprocal.

Work on p. 29 # 7a, 10a

Section 1.3 **Order of Operations**

You must follow BEDMAS

Work on p. 35 # 8bd

Section 1.6 **Exponents and Rational Numbers**

1. $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$
2. Follow BEDMAS

Work on p. 63 # 6ad

Chapter Two

Section 2.2 **Multiplying and Dividing Powers**

1. $\left(a^m\right)\left(a^n\right) = a^{a+n}$
2. $\left(a^m\right) \div \left(a^n\right) = a^{m-n}$
3. $(ab)^m = a^m b^m$ and $\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$

Work on p. 89 # 3b, 4a, 9a, 12c

Section 2.3 **Power of a Power**

1. $\left(a^m\right)^n = a^{mn}$
2. $\left(\frac{a^m}{b^n}\right)^p = \frac{a^{mp}}{b^{np}}$

Work on p. 96 # 6af, 8e

Section 2.4 **Adding and Subtracting Polynomials**

1. When adding, drop brackets and combine like terms.
2. When subtracting, change "-" to "+" and the sign of each term in the second bracket.

Work on. p. 109 - 110 #5df, 10a, 11c

Section 2.5 **Multiplying Terms**

Multiply the term on the outside of the bracket by everything inside the bracket.

Work on p. 117 # 6f, 9a

Section 2.6 **Simplifying Expressions**

Expand brackets and add like terms.

Work on p. 126 # 7ac, 8b

Chapter Three

Section 3.1 **Relations**

Review: Independent vs. dependent
Interpolate vs. extrapolate

Work on p. 147# 5

Section 3.2 **Exploring Linear Relations**

Distinguish from a graph and equation the difference between direct and partial variation.

Work on p. 151 #1

Section 3.3 **Investigating Properties of Linear Relations**

Know how to calculate first differences and what they tell you.
Review the equation of a line and how to solve for slope and y-intercept.

Work on p. 156# 7ac, 11cd

Section 3.4 **Equivalent Linear Relations**

Know how to calculate and graph the x- and y-intercept of a given line.

Work on p. 170 #4ab

Section 3.5 **Linear and Nonlinear Relations**

Determine whether a relation is linear or non-linear:
a) graphically
b) calculating the first differences
c) noting the degree of the equation.

Work on p. 179 #1, 3, 7a, 8a