

Math 9 Need to Know Checklist  
Unit 1: Rational Numbers

**Part A: Integers**

- Understand and define what an integer is.
- You must be able to add integers with both positive and negative signs.
  - $(-4) + 6 = 2$
  - $(-3) + (-12) = -15$
- You must be able to subtract integers with both positive and negative signs.
  - $(5) - (-4) = 9$
  - $(-3) - 6 = -9$
- You must be able to multiply integers with the same and different signs.
  - $(6)(-2) = -12$
  - $(-2)(-2) = 4$
- You must be able to divide integers with the same and different signs.
  - $(8) \div (-1) = -8$
  - $(-14) \div (-2) = 7$
- You must understand the order of operations for integers (BEDMAS) and solve problems using it.
- Understand the difference between a prime and composite number.
- You will be able to find the lowest common multiple and greatest common factor of a set of numbers.
- Be able to evaluate variable expressions using substitution
- Be able to combine like terms in algebra

**Part B: Rational Numbers**

- Understand the difference between integers and rational numbers.
- You must be able to convert between decimals and fractions.
- You must be able to compare rational numbers with different values on a number line (in decimal and fraction form).
- Be able to add and subtract rational numbers and show your work.

- Understand how to multiply and divide rational numbers and show your work.
- Be able to solve combined operations with rational numbers
- Solve problems involving rational numbers (in both fraction and decimal form).
- Determine square roots of rational numbers.