#### Video Links for Math 106 Week 1 Preparation Packet

### **ADDING AND SUBTRACTING INTEGERS (SIGNED NUMBERS)**

You should watch the videos and you can then practice and get immediate feedback.

**Video 1: Adding and subtracting Integers Main page:** <a href="https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-add-and-subtract#cc-7th-sub-neg-intro">https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-add-and-subtract#cc-7th-sub-neg-intro</a>

## Video 2: Adding and subtracting negative numbers video:

https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-add-and-subtract/cc-7th-sub-neg-intro/v/adding-and-subtracting-negative-number-examples

### **OPERATIONS WITH POLYNOMIALS**

#### Video 4- adding and subtracting polynomials

 $\frac{https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:poly-arithmetic/x2ec2f6f880c9fb89:poly-arithmetic/x2ec2f6f880c9fb89:poly-arithmetic/x2ec2f6f880c9fb89:poly-arith$ 

# Video 5: Distribute property multiplying polynomials -

https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:poly-arithmetic/x2ec2f6f830c9fb89:mono-by-poly/v/multiplying-monomials-by-polynomials

**Video 6: Multiplying Binomials** <a href="https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratics-multiplying-factoring/x2f8bb11595b61c86:multiply-binomial/v/multiplying-binomials">https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratics-multiplying-factoring/x2f8bb11595b61c86:multiply-binomial/v/multiplying-binomials</a>

### **FACTORING:**

**Video 7: GCF Factoring** <a href="https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:poly-factor/x2ec2f6f830c9fb89:common-factor/v/factoring-and-the-distributive-property-3">https://www.khanacademy.org/math/algebra2/x2ec2f6f830c9fb89:poly-factor/x2ec2f6f830c9fb89:common-factor/v/factoring-and-the-distributive-property-3</a>

#### Video 8- factoring a binomial as the difference of two squares:

https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratics-multiplying-factoring/x2f8bb11595b61c86:factor-difference-squares/v/difference-of-squares-intro

## Video 9 Factoring Trinomials by Trial and Error Method

https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratics-multiplying-factoring/x2f8bb11595b61c86:factor-quadratics-intro/v/factoring-quadratic-expressions

### Video 10 Factoring Trinomials by Grouping or "AC method"

 $\frac{https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratics-multiplying-factoring/x2f8bb11595b61c86:factor-quadratics-grouping/v/factoring-trinomials-by-grouping-4$ 

#### **RATIONAL NUMBERS (FRACTIONS):**

#### **Video 11: ORDERING RATIONAL NUMBERS:**

https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-negative-number-topic/x0267d782:ordering-rational-numbers/v/ordering-rational-numbers

## **VIDEO 12: Converting between mixed numbers and improper fractions:**

https://www.khanacademy.org/math/cc-fourth-grade-math/imp-fractions-2/imp-mixed-numbers/v/changing-a-mixed-number-to-an-improper-fraction

### **Video 13: Finding Equivalent Fractions**

https://www.khanacademy.org/math/cc-fourth-grade-math/comparing-fractions-and-equivalent-fractions

Video 14: Simplifying Fractions: <a href="https://www.youtube.com/watch?v=WPimvspI0\_c">https://www.youtube.com/watch?v=WPimvspI0\_c</a>

**Video 15: Converting to mixed numbers**: <a href="https://www.khanacademy.org/math/cc-fourth-grade-math/imp-fractions-2/imp-mixed-numbers/v/changing-an-improper-fraction-to-a-mixed-number">https://www.khanacademy.org/math/cc-fourth-grade-math/imp-fractions-2/imp-mixed-numbers/v/changing-an-improper-fraction-to-a-mixed-number</a>

**Video 16: Finding the LCM** <a href="https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-expressions-and-variables/cc-6th-lcm/v/least-common-multiple-exercise">https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-expressions-and-variables/cc-6th-lcm/v/least-common-multiple-exercise</a>

## **Video 17: Adding and Subtracting Fractions with Different Denominators:**

https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-add-and-subtract#cc-7th-add-sub-neg-fractions

**Video 18: Multiplying Fractions** <a href="https://www.khanacademy.org/math/cc-fifth-grade-math/5th-multiply-fractions/imp-multiplying-fractions/v/multiplying-fractions">https://www.khanacademy.org/math/cc-fifth-grade-math/5th-multiply-fractions/imp-multiplying-fractions/v/multiplying-fractions</a>

**Video 19 Dividing Fractions:** <a href="https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-arithmetic-operations/cc-6th-dividing-fractions/v/dividing-fractions-example">https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-arithmetic-operations/cc-6th-dividing-fractions/v/dividing-fractions-example</a>

## **SOLVING LINEAR EQUATIONS:**

**Video 20 Solving Linear Equations**: <a href="https://www.khanacademy.org/math/algebra-home/alg-basic-eq-ineq/alg-old-school-equations/v/algebra-linear-equations-1">https://www.khanacademy.org/math/algebra-home/alg-basic-eq-ineq/alg-old-school-equations/v/algebra-linear-equations-1</a>

#### **EXPONENTS:**

**Video 21 Negative exponents:** <a href="https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-pos-neg-exponents/v/negative-exponents#:"text=A%20positive%20exponent%20tells%20us,2%E2%81%B4)%20%3D%201%2F16.

**Video 22 Product and Power Rules**: <a href="https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-exponent-properties/v/exponent-properties-involving-products">https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-exponent-properties/v/exponent-properties-involving-products</a>

**Video 23 Quotient Rule**: <a href="https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-exponent-properties/v/exponent-properties-involving-quotients">https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-exponent-properties/v/exponent-properties-involving-quotients</a>

**Video 24: Exponent Properties with parentheses** <a href="https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponents-raised-to-an-exponent-properties/v/products-and-exponents-raised-to-an

# **SIMPIFYING ROOTS:**

**Video 25 cube roots** <a href="https://www.khanacademy.org/math/class-8-math-assamese/x6508f27e90d41441:cubes-and-cube-roots/x6508f27e90d41441:cube-roots-using-factorisation/v/introduction-to-cube-roots">https://www.khanacademy.org/math/class-8-math-assamese/x6508f27e90d41441:cube-roots-using-factorisation/v/introduction-to-cube-roots</a>

**Video 26 Simplifying Square Roots**: <a href="https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:rational-exponents-radicals/x2f8bb11595b61c86:simplifying-square-roots/v/simplifying-square-roots-1">https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:rational-exponents-radicals/x2f8bb11595b61c86:simplifying-square-roots/v/simplifying-square-roots-1</a>