

Number Operations: An Introduction to Equations

Week 1: **Square Roots and Cube Roots**

- Relationship between squares/cubes and square/cube roots
- Square roots of perfect squares
- Finding squares/cubes using prime factorization

Week 2: **Rational and Irrational numbers**

- Classify rational and irrational number
- Approximating irrational number/square roots

<https://www.youtube.com/watch?v=RPVu3pYDUFI>

Week 3: **Exponents with negative/fractional bases**

- Even and odd exponents
- 0 and 1st power
- Practice solving exponents with fractional bases and negative bases

Week 4: **Properties of Exponents Part 1**

- Multiplying exponents
- Power of a power
- Quotient of Exponents

<https://www.youtube.com/watch?v=yvSBiLFjsvE>

<https://www.youtube.com/watch?v=AeEyx2OmR1>

Week 5: **Properties of Exponents Part 2**

- Power of a product
- Power of a fraction

Week 6: **Properties of Exponents Part 3**

- Negative exponents
- Fractional Exponents

Week 7: **Scientific Notation Part 1**

- Multiplying with powers of 10s
- Intro to scientific notation

<https://www.youtube.com/watch?v=Dme-G4rc6NI>

Week 8: **Scientific Notation Part 2**

- Multiplying and dividing in Scientific notation
- Adding and subtracting in scientific notation

Week 9: **Simple Equations Part 1**

- Equations with variable on both sides
- Equations with variable in the denominator

- Equations with fractions

Week 10: Simple Equations Part 2

- Equations with parenthesis
- PEMDAS

Week 11: Simple Equations Part 3

- Finding the number of solutions to an equation
- Simple equation word problems

Week 12: Wrap up and Review