Class of 2025

IXL Summer Work for boys who just finished 7th Grade and will be entering 8th Grade Accelerated

From 7th Grade IXL Section:

Geometry
- Lines, line segments, and rays
- Parallel, perpendicular, intersecting
- Name, measure, and classify angles
- Identify complementary, supplementary, vertical, adjacent, and congruent angles
- Find measures of complementary, supplementary, vertical, and adjacent angles
- Transversal of parallel lines
- Classify triangles
- Classify quadrilaterals
- Find missing angles in triangles and quadrilaterals
- Perimeter
- Area of rectangles and parallelograms
- Area of triangles and trapezoids
- Circles: calculate area, circumference, radius, and diameter
- Surface area
- Volume

From 8th grade IXL Section:

Number Theory

Factors
- Divisibility rules
- Prime or composite
- Prime factorization
- Greatest common factor
- Least common multiple
- GCF and LCM: word problems

Integers

- Absolute value and opposite integers

Operation with Integers

- Add and subtract three or more integers
- Simplify expressions involving integers and absolute values
- Evaluate variable expressions with integers and absolute values
Rational Numbers

Identify rational and irrational numbers
Simplify fractions
Convert between decimals and fractions or mixed numbers

Operations with Rational Numbers

Reciprocals and multiplicative inverses
Add and subtract rational numbers
Add and subtract rational numbers: word problems
Multiply and divide rational numbers
Multiply and divide rational numbers: word problems
Simplify expressions involving rational numbers
Evaluate variable expressions involving rational numbers

Exponents and Roots

Multiplication with exponents
Power rule
Square roots of perfect squares
Positive and negative square roots
Estimate positive and negative square roots
Cube roots of perfect cubes

Ratios & Proportions

Do the ratios form a proportion?
Solve proportions
Solve proportions: word problems

Percents

Convert between percents, fractions, and decimals
Compare percents to fractions and decimals
Find what percent one number is of another
Find what percent one number is of another: word problems
Estimate percents of numbers

From Algebra IXL Section

Solve Equations

Solve two-step linear equations
Solve advanced linear equations
Solve equations with variables on both sides