

# SUMMER MATH ASSIGNMENT - 7TH GRADE (OPTIONAL)

Log on to IXL and complete the lessons listed below. A few minutes each day will keep your skills sharp for next school year. (Type a lesson topic listed below in the search box.)

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## Seventh Grade Math - Summer Program

### IXL Links

- A. Number theory**
- 1 Prime or composite
  - 2 Prime factorization
  - 4 Divisibility rules
  - 5 Greatest common factor
  - 6 Least common multiple
  - 9 Scientific notation
- B. Integers**
- 1 Understanding integers
  - 5 Compare and order integers
- C. Operations with integers**
- 3 Add integers
  - 6 Subtract integers
  - 13 Multiply integers
  - 15 Divide integers
  - 19 Add, subtract, multiply, and divide integers
- D. Decimals**
- 1 Decimal numbers review
  - 4 Round decimals

**E. Operations with decimals**

- 1 Add and subtract decimals**
- 3 Multiply decimals**
- 5 Divide decimals**
- 7 Estimate sums, differences, and products of decimals**
- 9 Multi-step inequalities with decimals**

**F. Fractions and mixed numbers**

- 3 Write fractions in lowest terms**
- 5 Least common denominator**
- 6 Compare and order fractions**
- 8 Convert between mixed numbers and improper fractions**
- 9 Compare mixed numbers and improper fractions**

**G. Operations with fractions**

- 1 Add and subtract fractions**
- 3 Add and subtract mixed numbers**
- 5 Inequalities with addition and subtraction of fractions and mixed numbers**
- 7 Multiply fractions and whole numbers**
- 9 Multiply fractions**
- 10 Multiply mixed numbers**
- 12 Divide fractions**
- 13 Divide mixed numbers**
- 15 Estimate products and quotients of fractions and mixed numbers**

**H. Rational numbers**

- 1 Convert fractions or mixed numbers to decimals**
- 2 Convert decimals to fractions or mixed numbers**
- 3 Convert between decimals and fractions or mixed numbers**
- 8 Add and subtract positive and negative decimals**
- 9 Add and subtract positive and negative fractions**
- 13 Multiply and divide positive and negative decimals**
- 14 Multiply and divide positive and negative fractions**
- 15 Multiply and divide rational numbers**

**I. Exponents and square roots**

- 1 Understanding exponents**
- 3 Solve equations with variable exponents**
- 6 Understanding negative exponents**
- 9 Evaluate numerical expressions involving exponents**
- 10 Square roots of perfect squares**

**J. Ratios, rates, and proportions**

- 1 Understanding ratios**
- 5 Unit rates**
- 11 Solve proportions**

**L. Percents**

- 2 Convert between percents, fractions, and decimals**
- 3 Compare percents to fractions and decimals**
- 7 Solve percent equations**
- 9 Percent of change**

**M. Consumer math**

- 3 Unit prices**
- 5 Unit prices: find the total price**
- 8 Find the percent: tax, discount, and more**
- 9 Sale prices: find the original price**
- 10 Multi-step problems with percents**
- 12 Simple interest**
- 13 Compound interest**

**P. Coordinate plane**

- 2 Quadrants and axes**
- 4 Distance between two points**

**Q. Number sequences**

- 1 Identify arithmetic and geometric sequences**
- 6 Evaluate variable expressions for number sequences**

**R. Expressions and properties**

- 2 Write variable expressions: two or three operations
- 5 Evaluate multi-variable expressions
- 11 Multiply using the distributive property
- 12 Solve equations using properties
- 15 Add and subtract like terms: with exponents

**S. One-variable equations**

- 5 Solve one-step equations
- 6 Solve two-step equations

**T. One-variable inequalities**

- 4 Solve one-step inequalities
- 6 Solve two-step inequalities

**X. Transformations and congruence**

- 1 Line symmetry
- 4 Identify reflections, rotations, and translations

**AA. Geometric measurement**

- 1 Perimeter
- 2 Area of rectangles and parallelograms
- 3 Area of triangles and trapezoids
- 5 Area of circles
- 7 Volume of cubes and prisms

**BB. Data and graphs**

- 8 Create bar graphs
- 15 Create line graphs
- 18 Make predictions with scatter plots

**CC. Statistics**

- 1 Calculate mean, median, mode, and range
- 2 Interpret charts and graphs to find mean, median, mode, and range

**DD. Probability**

- 1 Probability of simple events
- 5 Make predictions using experimental probability
- 11 Probability of independent and dependent events