

ELMS Summer Mathematics Homework 2021

In the mathematics department at ELMS, we use many tools to ensure students' success, one of which is our IXL program. Skills will be due during the first two weeks of school in the fall of 2021. Students are HIGHLY encouraged to complete them, a bit at a time, over the summer months to keep those math skills sharp.

Students will log in using their Clever accounts.

We would like the students to complete the following assignments in IXL with a Smart Score of 90 or better. In the event that IXL changes codes over the summer, please look for the **TOPIC** name (example: Understand exponents instead of 5.E.8).

Fall 2021 Placement – Sixth-grade Accelerated Math – Complete the following skills in the fifth-grade section - No calculators permitted: (20 links total)

- Understand exponents (5.E.8)
- Prime factorization (5.F.3)
- Round decimals (5.G.8)
- Convert decimals to fractions (5.G.17)
- Add and subtract decimals: word problems (5.H.4)
- Multiply two decimals: where does the decimal point go? (5.I.14)
- Add and subtract fractions in recipes (5.L.22)
- Multiply two mixed numbers (5.M.37)
- Divide fractions and mixed numbers (5.N.11)
- Evaluate numerical expressions (order of operation) (5.O.5)
- Unit prices (5.R.10)
- Graph points on a coordinate plane (5.T.3)
- Graph points from a table (5.T.4)
- Graph a two-variable relationship (5.U.11)
- Interpret line plots (5.V.9)
- Find the mean (5.W.2)
- Find the median (5.W.3)
- Areas of triangles (5.DD.7)
- Area of compound figures (5.DD.9)
- Area between two rectangles (5.DD.10)

ALL returning students: These skills must have been completed after June 9th, 2021. If the skill was previously mastered during the 2020-2021 school year, a smart score of 90 must be recompleted over the summer.

Fall 2021 Placement – Seventh-grade Math Accelerated – Complete the following skills in the sixth-grade section - No calculators permitted (20 links total)

- Write multiplication expressions using exponents (6-D.1)
- Evaluate exponents (6-D.2)
- Find the missing exponent or base (6-D.3)
- Divide fractions and mixed numbers: word problems (6-L.8)
- Evaluate numerical expressions involving decimals (6-O.7)
- Evaluate numerical expressions involving fractions (6-O.10)
- Write a ratio: word problems (6-R.3)
- Write variable expressions: two operations (6-Y.2)
- Evaluate multi-variable expressions (6-Y.5)
- Multiply using the distributive property (6-Y.13)
- Add and subtract like terms (6-Y.17)
- Find a value using two-variable equations (6-BB.5)
- Identify the graph of an equation (6-BB.11)
- Graph a two-variable equation (6-BB.13)
- Interpret a graph: word problems (6-BB.14)
- Write an equation from a graph using a table (6-BB.3)
- Calculate mean, median, mode, and range (6-HH.2)
- Unit rates (6-R.9)
- Find the total given a part and a percent (6-S.15)
- Graph points on a coordinate plane (6-X.2)

Fall 2021 Placement - Pre-algebra - Complete the following skills in the seventh-grade section-No calculators permitted: (20 links total)

- Add and Subtract Integers (7.C.12)
- Multiply and Divide Integers (7.C.21)
- Add, Subtract, Multiply, and Divide Decimals: word problems (7.E.8)
- Add, Subtract, Multiply, and Divide Fractions and Mixed Numbers: word problems (7.G.16)
- Write equations for proportional relationships from tables (7.K.2)
- Identify proportional relationships by graphing (7.K.3)
- Find the Constant of Proportionality from a graph (7.K.4)
- Write equations for proportional relationships from graphs (7.K.5)
- Write variable expressions: two or three operations (7.R.2)
- Add and subtract linear expressions (7.R.14)
- Add and subtract like terms: with exponents (7.R.15)
- Factors of linear expressions (7.R.16)
- Solve one-step equations (7.S.5)
- Solve two-step equations (7.S.6)
- Solve equations: word problems (7.S.7)
- Solve equations: involving like terms (7.S.8)
- Write a two-variable equation (7.U.6)
- Identify the graph of an equation (7.U.7)
- Graph a two variable- equation (7.U.8)
- Interpret a graph: word problem (7.U.9)

Fall 2021 Placement – Algebra I or Algebra I Honors - IXL Sections (under the **Algebra section): (20 links total)**

- Square roots (Alg 1- A.6)
- Cube roots (Alg 1- A.7)
- Add, subtract, multiply, and divide integers (Alg 1- B.1)
- Evaluate numerical expressions involving rational numbers (Alg 1- B.6)
- Evaluate variable expressions involving rational numbers (Alg 1-B.7)
- Identify equivalent ratios (Alg 1- C.1)
- Unit Rates (Alg 1- C.3)
- Solve proportions: word problems (Alg 1- C.6)
- Convert between percents, fractions, and decimals (Alg 1- D.1)
- Percent word problems (Alg 1- D.3)
- Multi-step problems with percents (Alg 1- D.9)
- Simplify variable expressions involving like terms and the distributive property (Alg 1- I.3)
- Identify equivalent linear expressions (Alg 1- I.4)
- Solve equations using order of operations (Alg 1- I.8)
- Solve advanced linear equations (Alg 1- J.5)
- Solve equations with variables on both sides (Alg 1- J.6)
- Solve linear equations: mixed review (Alg 1- J.11)
- Find the slope of a graph (Alg 1- S.3)
- Slope-intercept form: find the slope and y-intercept (Alg 1- S.6)
- Slope-intercept form: write an equation from a graph (Alg 1- S.8)

Fall 2021 Placement – Geometry Honors (18 links total) - IXL Sections (under the **Geometry section):**

- Triangle Angle-Sum Theorem (G-F.2)
- Midpoint formula: find the midpoint (G-B.9)
- Midpoint formula: find the endpoint (G-B.10)
- Slopes of parallel and perpendicular lines (G-E.5)
- Equations of parallel and perpendicular lines (G-E.6)
- Volume of prisms and cylinders (G-T.5)
- Volume of pyramids and cones (G-T.6)
- Similar solids: find the missing length (G-T.8)
- Surface area and volume review (G-T.12)
- Area and perimeter in the coordinate plane I (G-S.5)

IXL Sections (under the **Algebra section):**

- Solve a quadratic equation by factoring (A1-BB.8)
- Complete the square (A1-BB.9)
- Solve a quadratic equation by completing the square (A1-BB.10)
- Is (x, y) a solution to the system of equations? (A1-U.1)
- Linear equations: solve for y (A1-S.12)
- Multiply two binomials (A1-Z.8)
- Slope-intercept form: graph an equation (A1-S.7)
- Slope-intercept form: write an equation from a graph (A1-S.8)

Please contact us if you have any questions. We hope everyone has a great summer!

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