



IXL Skill Alignment

Course 1 Advanced alignment for EdGems Math



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Unit 1

Ratios and Rates

Textbook section	IXL skills
1.1: Ratios	<ol style="list-style-type: none">1. Write a ratio 77D2. Write a ratio: word problems W983. Use tape diagrams to solve ratio word problems YMD <p><i>Also consider</i></p> <ul style="list-style-type: none">• Write fractions in lowest terms 5EW
1.2: Ratio Tables and Graphs	<ol style="list-style-type: none">1. Write an equivalent ratio NEA2. Ratio tables PPF3. Ratios and rates: complete a table and make a graph 6Z2 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify equivalent ratios 2LM• Equivalent ratios: word problems RLZ
1.3: Rates and Unit Rates	<ol style="list-style-type: none">1. Unit rates JSZ2. Equivalent rates 9AF
1.4: Comparing Rates	<ol style="list-style-type: none">1. Compare rates: word problems NAF2. Compare ratios: word problems 2HT
1.5: Measurement Conversions	<ol style="list-style-type: none">1. Convert metric and customary units using tables 6U82. Convert metric and customary units using conversion factors AGN3. Convert between customary and metric systems 5CF <p><i>Also consider</i></p> <ul style="list-style-type: none">• Convert customary and metric units using proportions 2HG

1.6: Circumference and Pi

1. Parts of a circle 6JD
 2. Circumference of circles MDM
 3. Central angles of circles 4N9
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Unit 2

Multi-Digit Operations

Textbook section	IXL skills
2.1: Adding and Subtracting Decimals	<ol style="list-style-type: none"> 1. Add and subtract decimals 4F6 2. Add and subtract decimals: word problems 97T 3. Add and subtract money: multi-step word problems BY7 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Maps with decimal distances J7D
2.2: Multiplying Decimals	<ol style="list-style-type: none"> 1. Multiply a decimal by a whole number CKB 2. Multiply decimals 2WT 3. Multiply money amounts: multi-step word problems 99Z <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply decimals using grids NY9 • Multiply two decimals: where does the decimal point go? 5K4
2.3: Dividing by 1-Digit Numbers	<ol style="list-style-type: none"> 1. Divide multi-digit numbers by 1-digit numbers TVS 2. One-step word problems involving remainders YGJ
2.4: Dividing by Multi-Digit Numbers	<ol style="list-style-type: none"> 1. Divide by 2-digit numbers T5G 2. Divide by 2-digit numbers: word problems CNW
2.5: Dividing Decimals	<ol style="list-style-type: none"> 1. Divide decimals by whole numbers NLL 2. Divide decimals Y7C 3. Multiply and divide decimals: word problems GZN
2.6: Common Factors and Multiples	<ol style="list-style-type: none"> 1. Greatest common factor AMB 2. Least common multiple NGA 3. GCF and LCM: word problems ZB8

Unit 3

Proportional Relationships

Textbook section	IXL skills
3.1: Proportional Relationships	<ol style="list-style-type: none">1. Do the ratios form a proportion? LVW2. Do the ratios form a proportion: word problems ZQT3. Solve the proportion 7H5
3.2: Problem-Solving with Proportions	<ol style="list-style-type: none">1. Ratios and rates: word problems ZB92. Scale drawings: word problems UFW
3.3: Tables and Graphs of Proportional Relationships	<ol style="list-style-type: none">1. Identify proportional relationships from tables YRR2. Identify proportional relationships from graphs 48M3. Find the constant of proportionality from a table JA7 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify proportional relationships by graphing 8VR
3.4: Proportional Relationship Equations	<ol style="list-style-type: none">1. Write equations for proportional relationships from tables FCW2. Write equations for proportional relationships from graphs BM63. Complete a table and graph a proportional relationship TZQ

Unit 4

Percents

Textbook section	IXL skills
4.1: Fractions, Decimals, and Percents	<ol style="list-style-type: none">1. Convert fractions or mixed numbers to decimals XDL2. Convert between percents, fractions, and decimals ZAV <p><i>Also consider</i></p> <ul style="list-style-type: none">• Compare fractions: word problems YCF
4.2: Percent of a Number	<ol style="list-style-type: none">1. Solve percent problems ELY2. Solve percent word problems YWB
4.3: Percent of Change	<ol style="list-style-type: none">1. Percent of change SN72. Percent of change: word problems NXP
4.4: Percent Applications	<ol style="list-style-type: none">1. Percent word problems with money GCR2. Multi-step problems with percents AWG <p><i>Also consider</i></p> <ul style="list-style-type: none">• Which is the better coupon? WLZ

Unit 5

Fraction Operations

Textbook section	IXL skills
5.1: Multiplying Fractions	<ol style="list-style-type: none">1. Multiply two fractions using models 54X2. Multiply two fractions E5C3. Multiply fractions: word problems L73 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Scaling whole numbers by fractions: justify your answer 9YZ
5.2: Dividing Fractions with Models	<ul style="list-style-type: none">• <i>Coming soon:</i> Divide two fractions using models
5.3: Dividing Fractions	<ol style="list-style-type: none">1. Reciprocals R9V2. Divide fractions ABT3. Divide fractions: word problems KDQ
5.4: Multiplying and Dividing Mixed Numbers	<ol style="list-style-type: none">1. Multiply mixed numbers C7B2. Divide fractions and mixed numbers K6K3. Multiply and divide fractions and mixed numbers: word problems HGF
5.5: Rates and Ratios with Complex Fractions	<ol style="list-style-type: none">1. Calculate unit rates with fractions D5B

Unit 6

Expressions

Textbook section	IXL skills
6.1: Powers and Exponents	<ol style="list-style-type: none">1. Understanding exponents CHN2. Evaluate exponents XDA3. Exponents with fractional bases GEQ <p><i>Also consider</i></p> <ul style="list-style-type: none">• Find the missing exponent or base HC5• Exponents with decimal bases D5D
6.2: Order of Operations	<ol style="list-style-type: none">1. Evaluate numerical expressions involving whole numbers MLU2. Evaluate numerical expressions involving decimals YEE3. Evaluate numerical expressions involving fractions WNE <p><i>Also consider</i></p> <ul style="list-style-type: none">• Evaluate numerical expressions one step at a time XCQ• Evaluate numerical expressions with parentheses in different places NCR• Identify mistakes involving the order of operations V46
6.3: Variables and Expressions	<ol style="list-style-type: none">1. Write variable expressions TPE2. Write variable expressions: word problems 6LQ <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify terms and coefficients 9KE
6.4: Evaluating Expressions	<ol style="list-style-type: none">1. Evaluate variable expressions with whole numbers Q8Z2. Evaluate multi-variable expressions HC93. Evaluate variable expressions: word problems 7XA

Also consider

- Evaluate variable expressions with decimals, fractions, and mixed numbers 49T

6.5: Equivalent Expressions

1. Combine like terms 5D9
2. Identify equivalent expressions I KFG

Also consider

- Identify equivalent expressions using strip models W5U

6.6: The Distributive Property

1. Multiply using the distributive property 2HH
 2. Factor using the distributive property PGZ
- *Coming soon:* Identify equivalent numerical expressions
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Unit 7

One-Variable Equations

Textbook section	IXL skills
7.1: Equations and Solutions	<ol style="list-style-type: none"> 1. Does x satisfy an equation? L8T 2. Which x satisfies an equation? LKX 3. Write an equation from words AN8
7.2: Solving Addition and Subtraction Equations	<ol style="list-style-type: none"> 1. Solve one-step addition and subtraction equations MJG 2. Solve one-step addition and subtraction equations: word problems 35Q
7.3: Solving Multiplication and Division Equations	<ol style="list-style-type: none"> 1. Solve one-step multiplication and division equations TRA 2. Solve one-step multiplication and division equations: word problems GMV
7.4: Solving Percent Equations	<ol style="list-style-type: none"> 1. Solve percent problems using strip models MEA 2. Solve percent equations 6EH <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Solve percent problems using grid models YX6

Unit 8

Rational Numbers and the Coordinate Plane

Textbook section	IXL skills
8.1: Understanding Integers	<ol style="list-style-type: none">1. Understanding integers 8EP2. Absolute value and opposite integers S933. Compare and order integers 7ZF <p><i>Also consider</i></p> <ul style="list-style-type: none">• Integer inequalities with absolute values 4A8• Understanding opposite integers X8L• Understanding absolute value TLR
8.2: Comparing Rational Numbers	<ol style="list-style-type: none">1. Absolute values and opposites of rational numbers S7K2. Compare rational numbers KS23. Put rational numbers in order 5AX <p><i>Also consider</i></p> <ul style="list-style-type: none">• Classify rational numbers using a diagram 64K• Compare and order rational numbers using number lines FMS
8.3: Inequalities	<ol style="list-style-type: none">1. Solutions to inequalities P9N2. Graph inequalities on number lines CXX3. Write and graph inequalities: word problems AGB <p><i>Also consider</i></p> <ul style="list-style-type: none">• Write inequalities from number lines N99
8.4: The Coordinate Plane	<ol style="list-style-type: none">1. Objects on a coordinate plane GFN2. Quadrants 67V3. Reflect a point over an axis 32S <p><i>Also consider</i></p> <ul style="list-style-type: none">• Distance between two points A7P• Graph points on a coordinate plane VHQ• Describe the coordinate plane KU7

- Coordinate planes as maps N96
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8.5: Quadrilaterals and the Coordinate Plane

1. Graph quadrilaterals on the coordinate plane ASR
2. Area and perimeter of squares and rectangles on the coordinate plane UCD

Also consider

- Classify quadrilaterals BCV
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Unit 9

Two-Variable Equations

Textbook section	IXL skills
9.1: Input-Output Tables	<ol style="list-style-type: none">1. Identify independent and dependent variables: word problems 9UJ2. Complete a table for a two-variable relationship MJF3. Complete a table and make a graph: word problems EBM
9.2: Writing Two-Variable Equations	<ol style="list-style-type: none">1. Write a two-variable equation RBA2. Write an equation from a graph using a table BCM3. Solve word problems by finding two-variable equations UJQ
9.3: Graphing Two-Variable Equations	<ol style="list-style-type: none">1. Complete a table and graph a two-variable equation EY5

Unit 10

Area and Volume

Textbook section	IXL skills
10.1: Area with Fractions	1. Area with fractions AAQ
10.2: Area and Perimeter with Decimals	1. Perimeter with decimals FJM 2. Area with decimals 7NH 3. Area of quadrilaterals and triangles: word problems 9RW
10.3: Area of Composite Figures	1. Area of compound figures with triangles 5V2 <ul style="list-style-type: none"><i>Coming soon:</i> Area of compound figures: word problems <p><i>Also consider</i></p> <ul style="list-style-type: none">Area between two rectangles EY6Area between two triangles 8RG
10.4: Nets and Surface Area	1. Nets of three-dimensional figures 8KP 2. Surface area of prisms and pyramids PGA
10.5: Volume of Rectangular Prisms	1. Volume of cubes and rectangular prisms T2H 2. Volume of cubes and rectangular prisms: word problems BBM 3. Volume of compound figures WFV

Unit 11

Statistics

Textbook section	IXL skills
11.1: Introduction to Statistics	<ol style="list-style-type: none"> 1. Identify statistical questions PT7 2. Identify biased samples BSE
11.2: Measures of Center	<ol style="list-style-type: none"> 1. Calculate mean, median, mode, and range ZZK 2. Mean, median, mode, and range: find the missing number 77K <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Changes in mean, median, mode, and range 2G9
11.3: Dot Plots	<ol style="list-style-type: none"> 1. Create line plots 5HD 2. Interpret line plots M5Y 3. Find the mean, median, mode, or range from a line plot ZTM <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Create and interpret line plots with fractions QZP
11.4: Histograms	<ol style="list-style-type: none"> 1. Create histograms 7NG 2. Interpret histograms CBF <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Create frequency charts UUN
11.5: Box-and-Whisker Plots	<ol style="list-style-type: none"> 1. Calculate quartiles and interquartile range MNV 2. Box plots E9F
11.6: Analyzing Statistics	<ol style="list-style-type: none"> 1. Interpret charts and graphs to find mean, median, mode, and range 2WK 2. Identify an outlier and describe the effect of removing it 8Q5 <ul style="list-style-type: none"> • <i>Coming soon:</i> Choose appropriate measures to describe distributions



11.7: Mean Absolute Deviation

1. Calculate mean absolute deviation JUV

Unit 12

Sums and Differences of Rational Numbers

Textbook section	IXL skills
12.1: Adding Integers	<ol style="list-style-type: none">1. Add integers using number lines L952. Add integers ZM63. Add three or more integers F2N <p><i>Also consider</i></p> <ul style="list-style-type: none">• Add integers using counters 4J9
12.2: Adding Rational Numbers	<ol style="list-style-type: none">1. Add positive and negative decimals TZ92. Add positive and negative fractions BHC3. Add rational numbers FTC
12.3: Subtracting Integers	<ol style="list-style-type: none">1. Subtract integers using number lines EW22. Subtract integers WQ63. Add and subtract integers: word problems MP9 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Subtract integers using counters NYM• Add and subtract integers: find the sign HBD• Quantities that combine to zero: word problems FRF
12.4: Subtracting Rational Numbers	<ol style="list-style-type: none">1. Subtract positive and negative decimals UXF2. Subtract positive and negative fractions 5ZK3. Subtract rational numbers 7CF

Unit 13

Products and Quotients of Rational Numbers

Textbook section	IXL skills
13.1: Multiplying and Dividing Integers	<ol style="list-style-type: none"> 1. Integer multiplication and division rules QNJ 2. Multiply and divide integers 9YR <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Add, subtract, multiply, or divide two integers VMW
13.2: Multiplying Rational Numbers	<ol style="list-style-type: none"> 1. Multiply positive and negative decimals SMM 2. Multiply positive and negative fractions 8Q7 3. Multiply rational numbers 58C
13.3: Dividing Rational Numbers	<ol style="list-style-type: none"> 1. Divide positive and negative decimals 8RH 2. Divide positive and negative fractions VAX 3. Multi-step word problems with rational numbers RFM <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Divide rational numbers 9DU • Identify quotients of rational numbers: word problems PZ6
13.4: Order of Operations	<ol style="list-style-type: none"> 1. Exponents with negative bases JTE 2. Evaluate numerical expressions involving integers LUW 3. Multi-step word problems LHA
13.5: Equivalent Expressions	<ol style="list-style-type: none"> 1. Add and subtract like terms CN9 2. Multiply using the distributive property UQL 3. Identify equivalent expressions II HTG