



IXL Skill Alignment

5th Grade alignment for Math Expressions Common Core



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Unit 1

Addition and Subtraction with Fractions

Big Idea 1: Equivalent Fractions

Textbook section	IXL skills
1-1: Introduce the MathBoard	<ol style="list-style-type: none">Fractions review PCF <p><i>Also consider</i></p> <ul style="list-style-type: none">Decompose fractions multiple ways: sums up to 1 8TK
1-2: Explain Equivalent Fractions	<ol style="list-style-type: none">Identify equivalent fractions using number lines U7YEquivalent fractions: word problems 84W
1-3: Equivalent Fractions and Multipliers	<ol style="list-style-type: none">Patterns of equivalent fractions 35Z <p><i>Also consider</i></p> <ul style="list-style-type: none">Find equivalent fractions using area models AJHIdentify equivalent fractions ZGBEquivalent fractions MKAWrite fractions in lowest terms A76
1-4: Strategies for Comparing Fractions	<ol style="list-style-type: none">Compare fractions with like numerators or denominators QYNInequalities with fractions VCSCompare fractions: word problems ZY6 <p><i>Also consider</i></p> <ul style="list-style-type: none">Least common denominator R7PGraph and compare fractions on number lines RGVCompare fractions using benchmarks MJZ
1-5: Fractions Greater Than One	<ol style="list-style-type: none">Convert between improper fractions and mixed numbers B7X

Big Idea 2: Addition and Subtraction of Fractions

Textbook section	IXL skills
1-6: Add and Subtract Like Mixed Numbers	<ol style="list-style-type: none"> Add and subtract mixed numbers with like denominators XHJ Add and subtract mixed numbers with like denominators: word problems 45R <p><i>Also consider</i></p> <ul style="list-style-type: none"> Add and subtract fractions with like denominators FXW Add and subtract fractions with like denominators: word problems 7YQ
1-7: Add Unlike Fractions	<ol style="list-style-type: none"> Add fractions with unlike denominators using models 2BS Add fractions with unlike denominators D9N <p><i>Also consider</i></p> <ul style="list-style-type: none"> Represent addition of fractions with unlike denominators using objects HDL Add fractions with unlike denominators using objects KNQ
1-8: Subtract Unlike Fractions	<ol style="list-style-type: none"> Subtract fractions with unlike denominators VSP Add and subtract fractions with unlike denominators: word problems TCD <p><i>Also consider</i></p> <ul style="list-style-type: none"> Subtract fractions with unlike denominators using models QA6 Represent subtraction of fractions with unlike denominators using objects SGX Subtract fractions with unlike denominators using objects YT7 Complete addition and subtraction sentences with fractions FCA
1-9: Add and Subtract Unlike Mixed Numbers	<ol style="list-style-type: none"> Add and subtract mixed numbers with unlike denominators RZC Add and subtract mixed numbers with unlike denominators: word problems 48E

1-10: Practice with Unlike Mixed Numbers

1. Add and subtract fractions and mixed numbers MYJ

Also consider

- Add or subtract three fractions with unlike denominators 9Z4
- Complete addition and subtraction sentences with mixed numbers PSP

1-11: Reasonable Answers

1. Estimate sums and differences of fractions using benchmarks 9JR
2. Estimate sums and differences of mixed numbers 7A6

1-12: Real World Problems

1. Add and subtract fractions and mixed numbers: word problems UVY

Also consider

- Add 3 or more fractions with unlike denominators PBF

1-13: Focus on Mathematical Practices

1. Add and subtract fractions in recipes W9K

Unit 2

Addition and Subtraction with Decimals

Big Idea 1: Read and Write Whole Numbers and Decimals

Textbook section	IXL skills
2-1: Decimals as Equal Divisions	1. Convert fractions and mixed numbers to decimals: denominators of 10, 100, or 1,000 N5J <i>Also consider</i> <ul style="list-style-type: none"> What decimal number is illustrated? SJ7
2-2: Thousands to Thousandths	1. Understanding decimals expressed in words F9G 2. Expanded form for decimals 9FV 3. Convert decimals between standard and expanded form using fractions BLQ <i>Also consider</i> <ul style="list-style-type: none"> Place values in decimal numbers X8U Relationship between decimal place values DVM
2-3: Equate and Compare Thousandths	1. Equivalent decimals C2X 2. Compare decimals HZU <i>Also consider</i> <ul style="list-style-type: none"> Graph decimals on number lines VQR Compare decimals on number lines CUF Put decimal numbers in order YUX

Big Idea 2: Addition and Subtraction

Textbook section	IXL skills
2-4: Adding and Subtracting Decimals	1. Explore metric measures of length XLL 2. Add and subtract decimals: word problems VMT
2-5: Add Whole Numbers and Decimals	1. Add decimal numbers BDX 2. Add money amounts EJU

2-6: Subtract Whole Numbers and Decimals

1. Subtract decimal numbers SC8
2. Subtract money amounts Q64
3. Add and subtract money: word problems DLC

Also consider

- Add and subtract decimal numbers 7VJ
- Choose decimals with a particular sum or difference ARW
- Complete the decimal addition or subtraction sentence ZKV
- Inequalities with decimal addition and subtraction QEM

2-7: Properties and Strategies

1. Properties of addition E2F
2. Add using properties RZR
3. Distributive property: find the missing number EQE

Also consider

- Add 3 fractions or mixed numbers using properties of addition NQY

Big Idea 3: Round and Estimate with Decimals**Textbook section****IXL skills****2-8: Round and Estimate with Decimals**

1. Round decimals MPB
2. Estimate sums and differences of decimals using rounding Y8R

Also consider

- Estimate sums and differences of decimals using benchmarks CHE

2-9: Graph with Decimal Numbers

1. Compare, order, and round decimals: word problems 2MV
2. Interpret bar graphs: one-step problems FX5

Also consider

- Complete bar graphs H9X

2-10: Focus on Mathematical Practices

1. Add and subtract money amounts: two-step word problems 8SJ

Unit 3

Multiplication and Division with Fractions

Big Idea 1: Multiplication with Fractions

Textbook section	IXL skills
3-1: Basic Multiplication Concepts	1. Multiply unit fractions by whole numbers 8AQ <i>Also consider</i> <ul style="list-style-type: none"> Multiply unit fractions by whole numbers using number lines X8E Multiples of unit fractions: find the missing numbers MR5 Multiply unit fractions and whole numbers: sorting FTW
3-2: Multiplication with Non-Unit Fractions	1. Multiply fractions by whole numbers I QFQ 2. Fractions of a number I AHX 3. Fractions of a number: word problems LPC <i>Also consider</i> <ul style="list-style-type: none"> Multiply fractions by whole numbers using arrays RB9
3-3: Multiplication with Fractional Solutions	1. Multiply fractions by whole numbers using models: complete the equation VXF 2. Multiply fractions by whole numbers using number lines DRU 3. Multiply fractions by whole numbers II 69L <i>Also consider</i> <ul style="list-style-type: none"> Multiply fractions by whole numbers: word problems U2V Multiples of fractions: find the missing numbers 5DT Multiply fractions and whole numbers: sorting K69
3-4: Multiply a Fraction by a Fraction	1. Multiply two fractions using models RLD 2. Multiply two fractions 8KV 3. Multiply two fractions: word problems 38Y

Also consider

- Multiply two fractions using models: fill in the missing factor LD7

3-5: Multiplication Strategies

1. Multiply fractions with common factors WQA

Also consider

- Multiply three or more fractions and whole numbers ZDL
- Complete the fraction multiplication sentence S6G
- Complete the fraction multiplication sentence: with common factors BUZ

3-6: Multiply Mixed Numbers

1. Multiply mixed numbers XSE
2. Multiplication with mixed numbers: word problems 5W6

Also consider

- Multiply fractions and mixed numbers in recipes QHN
- Multiply three or more mixed numbers, fractions, and/or whole numbers BMU

Big Idea 2: Multiplication Links

Textbook section	IXL skills
3-7: Relate Fraction Operations	<ol style="list-style-type: none"> 1. Add, subtract, and multiply fractions and mixed numbers H5N <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Properties of multiplication LUE • Multiply using properties 6PN
3-8: Solve Real World Problems	<ol style="list-style-type: none"> 1. Add, subtract, and multiply fractions and mixed numbers: word problems PGN
3-9: Make Generalizations	<ol style="list-style-type: none"> 1. Scaling by fractions and mixed numbers AB5 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Scaling whole numbers by fractions: justify your answer Q7M

Big Idea 3: Division with Fractions

Textbook section	IXL skills
3-10: When Dividing is Also Multiplying	<ol style="list-style-type: none">1. Relate division and fractions D862. Divide unit fractions and whole numbers using area models A7W3. Divide unit fractions and whole numbers NTW<ul style="list-style-type: none">• <i>Coming soon:</i> Understand fractions as division <p><i>Also consider</i></p> <ul style="list-style-type: none">• Divide unit fractions by whole numbers using models XML• Divide whole numbers by unit fractions using models VDU
3-11: Solve Division Problems	<ol style="list-style-type: none">1. Understand fractions as division: word problems CTD2. Divide unit fractions and whole numbers: word problems G2N
3-12: Distinguish Multiplication from Division	<ol style="list-style-type: none">1. Multiply and divide unit fractions and whole numbers: word problems DQN
3-13: Review Operations with Fractions	<ol style="list-style-type: none">1. Add, subtract, multiply, and divide fractions and mixed numbers VFX2. Add, subtract, multiply, and divide fractions and mixed numbers: word problems APD
3-14: Focus on Mathematical Practices	<ol style="list-style-type: none">1. Circle graphs QHC

Unit 4

Multiplication with Whole Numbers and Decimals

Big Idea 1: Multiplication with Whole Numbers

Textbook section	IXL skills
4-1: Shift Patterns in Multiplication	<ol style="list-style-type: none"> 1. Multiply by multiples of 10, 100, or 1000 K56 2. Powers of ten 6JE 3. Multiply a whole number by a power of ten: with exponents 92K
4-2: Patterns with Fives and Zeros	<ol style="list-style-type: none"> 1. Multiply numbers ending in zeroes M5R 2. Multiply numbers ending in zeroes: word problems 7E2 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiplication patterns over increasing place values BCK
4-3: Sharing Methods for Multiplication	<ol style="list-style-type: none"> 1. Multiply 2-digit numbers by 2-digit numbers using area models AMJ 2. Multiply 2-digit numbers using partial products CZ5
4-4: Multiply Two-Digit Numbers	<ol style="list-style-type: none"> 1. Multiply 2-digit numbers by 2-digit numbers LLJ 2. Multiply 2-digit by 2-digit numbers: word problems JCC <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply by 2-digit numbers: complete the missing steps 9LX
4-5: Practice Multiplication	<ol style="list-style-type: none"> 1. Multiply by 1-digit and 2-digit numbers G8P

Big Idea 2: Multiplication with Decimal Numbers

Textbook section	IXL skills
4-6: Multiply Decimals by Whole Numbers	<ol style="list-style-type: none">1. Multiply whole numbers by decimals 6JH2. Multiply decimals and whole numbers: word problems 83A <p><i>Also consider</i></p> <ul style="list-style-type: none">• Multiply a decimal by a one-digit whole number using blocks U5Q• Multiply a decimal by a one-digit whole number using the distributive property 9BA• Multiply a decimal by a two-digit whole number using area models VNT
4-7: Multiply by Decimals	<ol style="list-style-type: none">1. Multiply by a power of ten with decimals: find the missing number GC52. Multiply two decimals: where does the decimal point go? 6FA
4-8: Multiply with Decimals Greater than 1	<ol style="list-style-type: none">1. Multiply two decimals: products up to thousandths TDG2. Solve using properties of multiplication: with decimals RG9 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Complete the decimal multiplication sentence using grids R9T• Multiply decimals using grids 66Z• Inequalities with decimal multiplication: products up to thousandths B88
4-9: Compare Shift Patterns	<ol style="list-style-type: none">1. Multiply a decimal by a power of ten 5DK2. Multiply by 0.1 or 0.01 85W3. Multiply a decimal by a power of ten: with exponents 28A <p><i>Also consider</i></p> <ul style="list-style-type: none">• Relationship between decimal place values DVM



4-10: Estimate Products

1. Estimate products: multiply by 2-digit numbers 3J5
2. Estimate products of decimals SL7

4-11: Multiplication Practice

1. Multiply with decimals 7KY

4-12: Focus on Mathematical Practices

1. Price lists WUU
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Unit 5

Division with Whole Numbers and Decimals

Big Idea 1: Division with Whole Numbers

Textbook section	IXL skills
5-1: Divide Whole Numbers by One Digit	<ol style="list-style-type: none"> 1. Divide multi-digit numbers by 1-digit numbers N2H 2. Divide 4-digit numbers by 1-digit numbers: word problems NQF 3. Estimate quotients: word problems HD6
5-2: Explore Dividing by Two-Digit Whole Numbers	<ol style="list-style-type: none"> 1. Divide 4-digit numbers by 2-digit numbers 35K 2. Divide 4-digit numbers by 2-digit numbers: word problems J8L <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Divide by 2-digit numbers using models AJA • Divide by 2-digit numbers using partial quotients ASM • Estimate quotients: 2-digit divisors EFW
5-3: Too Large, Too Small, or Just Right?	<ol style="list-style-type: none"> 1. Adjust quotients 5FH
5-4: Interpret Remainders	<ol style="list-style-type: none"> 1. Divide 3-digit by 2-digit numbers: interpret remainders 87G
5-5: Division Practice	<ol style="list-style-type: none"> 1. Divide larger numbers by 1-digit and 2-digit numbers RL7 2. Multiplication and division up to thousands: word problems UXE

Big Idea 2: Division with Decimal Numbers

Textbook section	IXL skills
5-6: Divide Decimal Numbers by Whole Numbers	<ol style="list-style-type: none"> 1. Decimal division patterns over increasing place values GNC 2. Division with decimal quotients 5SG

Also consider

- Divide by powers of ten H2N
- Divide by a power of ten: with exponents CL2
- Divide by a power of ten with decimals: find the missing number R2P
- Estimate decimal quotients CZ9

5-7: Divide Whole Numbers by Decimal Numbers

1. Divide whole numbers by decimals M5D

5-8: Divide a Decimal Number by a Decimal Number

1. Divide by 0.1, 0.01, or 0.001 QXR
2. Divide by decimals without adding zeroes RTS
3. Divide decimals by decimals X2J

5-9: Division Practice

1. Division with decimals WJX

5-10: Distinguish Between Multiplication and Division

1. Multiply and divide with decimals 7ZV
2. Multiply and divide decimals: word problems 29Q

Also consider

- Inequalities with decimal division B49
- Inequalities with decimal multiplication: products up to thousandths B88

5-11: Focus on Mathematical Practices

1. Unit prices C5N

Unit 6

Operations and Word Problems

Big Idea 1: Equations and Problem Solving

Textbook section	IXL skills
6-1: Situation and Solution Equations for Addition and Subtraction	1. Write and solve addition and subtraction equations using diagrams: word problems 6VE
6-2: Situation and Solution Equations for Multiplication and Division	1. Write and solve multiplication and division equations using diagrams: word problems GHK <i>Also consider</i> • Write variable equations: word problems TVB
6-3: Write Word Problems	1. Which word problem matches the one-step equation? VF9
6-4: Determine Reasonable Answers	1. Estimate sums and differences: word problems KTA 2. Estimate products and quotients: word problems DSA 3. Estimate products word problems: identify reasonable answers WP8 <i>Also consider</i> • Add, subtract, multiply, and divide whole numbers: word problems SNZ • Solve one-step equations: word problems H7J

Big Idea 2: Comparison Word Problems

Textbook section	IXL skills
6-5: Language of Comparison Problems	1. Comparison word problems 2Q3
6-6: Multiplicative Comparison Problems	1. Compare numbers using multiplication: word problems H6U
6-7: Types of Comparison Problems	1. Comparison word problems: addition or multiplication? TEK

Big Idea 3: Problems with More Than One Step

Textbook section	IXL skills
6-8: Equations and Parentheses	<ol style="list-style-type: none">Two-step word problems with money <small>EEM</small>Word problems with extra or missing information <small>9KF</small>
6-9: Multistep Word Problems	<ol style="list-style-type: none">Multi-step word problems <small>Z76</small>Multi-step word problems involving remainders <small>XGE</small> <p><i>Also consider</i></p> <ul style="list-style-type: none">Multi-step word problems: identify reasonable answers <small>NNJ</small>
6-10: Practice Problem Solving	<ol style="list-style-type: none">Multiply money amounts: multi-step word problems <small>THS</small>Represent multi-step problems using equations <small>FZX</small> <p><i>Also consider</i></p> <ul style="list-style-type: none">Multi-step word problems: multiplicative comparison <small>V59</small>
6-11: Focus on Mathematical Practices	<ol style="list-style-type: none">Find the mean <small>AAP</small>Interpret bar graphs: multi-step problems <small>DGY</small>

Unit 7

Algebra, Patterns, and Coordinate Graphs

Big Idea 1: Algebraic Reasoning and Expressions

Textbook section	IXL skills
7-1: Read and Write Expressions	<ol style="list-style-type: none"> 1. Write numerical expressions: one operation SCJ 2. Write numerical expressions: two operations 8ME 3. Write variable expressions UZZ
7-2: Simplify Expressions	<ol style="list-style-type: none"> 1. Evaluate numerical expressions with and without parentheses J73 2. Evaluate numerical expressions with parentheses and brackets TVY <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Identify mistakes involving the order of operations JLJ • Evaluate numerical expressions with parentheses in different places 9F5
7-3: Evaluate Expressions	<ol style="list-style-type: none"> 1. Evaluate variable expressions CTJ 2. Write variable expressions: word problems E2M <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Write numerical expressions for word problems NF5

Big Idea 2: Patterns and Graphs

Textbook section	IXL skills
7-4: Patterns and Relationships	<ol style="list-style-type: none"> 1. Use a rule to complete an addition pattern HZY <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Compare patterns XPM

7-5: The Coordinate Plane

1. Describe the coordinate plane PF8
2. Points on a coordinate plane ZRK
3. Graph points on a coordinate plane AST

Also consider

- Graph triangles and quadrilaterals 5ZC
- Distance between two points UUY

7-6: Graph Ordered Pairs

1. Use a rule to complete a table and a graph N9B
2. Complete a table from a graph 2WL
3. Complete a table and make a graph: word problems WZR

Also consider

- Analyze graphed relationships SMY

7-7: Focus on Mathematical Practices

1. Coordinate planes as maps ZBD
2. Follow directions on a coordinate plane XQR

Unit 8

Measurement and Geometry

Big Idea 1: Length, Area, and Volume

Textbook section	IXL skills
8-1: Metric Units of Length	1. Convert metric units of length ZPJ
8-2: Customary Units of Length	1. Convert customary units of length 8ZP
8-3: Perimeter and Area of Rectangles	1. Area of squares and rectangles E6B 2. Understand fraction multiplication and area NFK 3. Find the perimeter or area: mixed number side lengths Z5G <i>Also consider</i> <ul style="list-style-type: none"> Area and perimeter: word problems MHV
8-4: Cubic Units and Volume	1. Volume of rectangular prisms made of unit cubes WG8 <i>Also consider</i> <ul style="list-style-type: none"> Understanding cubic units L56 Volume of irregular figures made of unit cubes WCE
8-5: Visualize Volume	1. Volume of cubes and rectangular prisms TFL
8-6: Introduce Volume Formulas	1. Apply volume formulas for rectangular prisms 9M5 2. Volume of cubes and rectangular prisms: word problems NR6 <i>Also consider</i> <ul style="list-style-type: none"> Volume of cubes and rectangular prisms with decimal side lengths RYY
8-7: Relate Length, Area, and Volume	1. Relationship between volume and the area of the base: word problems QMA
8-8: Volume of Composite Solid Figures	1. Volume of compound figures J83

Big Idea 2: Liquid Volume, Mass, and Weight

Textbook section	IXL skills
8-9: Metric Units of Liquid Volume	1. Convert metric units of volume T7K
8-10: Metric Units of Mass	1. Convert metric units of mass K57 <i>Also consider</i> <ul style="list-style-type: none"> Multi-step problems with metric unit conversions X5T Choose the appropriate metric unit of measure S9U Compare and convert metric units PJL Convert metric units involving decimals 2Q8 Conversion tables - metric units 7QS
8-11: Customary Units of Liquid Volume	1. Convert customary units of volume 7EY
8-12: Customary Units of Weight	1. Convert customary units of weight UMD <i>Also consider</i> <ul style="list-style-type: none"> Multi-step problems with customary unit conversions MJ9 Choose the appropriate customary unit of measure UDF Compare and convert customary units 8DZ Conversion tables - customary units 7HU Compare customary units by multiplying WU8 Convert customary units involving fractions WCM
8-13: Read and Make Line Plots	1. Interpret line plots 79C 2. Create line plots ZBV 3. Create and interpret line plots with fractions XBS

Big Idea 3: Classify Geometric Figures

Textbook section	IXL skills
8-14: Attributes of Quadrilaterals	<ol style="list-style-type: none">1. Pick all the names for a quadrilateral E972. Draw quadrilaterals VYE3. Identify the relationships between quadrilaterals KCG <p><i>Also consider</i></p> <ul style="list-style-type: none">• Classify quadrilaterals 6ZQ• Describe relationships among quadrilaterals SZT
8-15: Attributes of Triangles	<ol style="list-style-type: none">1. Classify triangles C64
8-16: Attributes of Two-Dimensional shapes	<ol style="list-style-type: none">1. Is it a polygon? ZH62. Regular and irregular polygons UHC <p><i>Also consider</i></p> <ul style="list-style-type: none">• Number of sides in polygons 4Z2• Sort polygons into Venn diagrams US8• Properties of polygons TQU
8-17: Focus on Mathematical Practices	<ol style="list-style-type: none">1. Compare volumes and dimensions of rectangular prisms: word problems JP6