

# IXL Skill Alignment

4th alignment for enVisionMATH 2.0 Common Core Edition

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### Generalize Place Value Understanding

Textbook section	IXL skills	
1-1: Numbers Through One Million	A.2	Convert between standard and expanded form >>
	A.10	Write word names for numbers up to one million >>
1-2: Place Value Relationships		
1-3: Compare Whole Numbers	A.21	Compare numbers up to one billion >>
<b>1-4:</b> Round Whole Numbers	A.16	Rounding >>
1-5: Construct Arguments		



### Fluently Add and Subtract Multi-Digit Whole Numbers

Textbook section	IXL ski	lls
<b>2-1:</b> Mental Math: Find Sums and Differences	B.2	Add numbers up to millions >>
	B.4	Add numbers up to millions: word problems >>
	<b>C.2</b>	Subtract numbers up to millions >>
	<b>C.4</b>	Subtract numbers up to millions: word problems >>
	See al	50:
	B.6	Properties of addition >>
	B.7	Add 3 or more numbers up to millions >>
2-2: Mental Math: Estimate Sums and Differences	B.10	Estimate sums >>
	B.11	Estimate sums: word problems >>
	<b>C.8</b>	Estimate differences >>
	<b>C.9</b>	Estimate differences: word problems >>
<b>2-3:</b> Add Whole Numbers	B.2	Add numbers up to millions >>
	B.4	Add numbers up to millions: word problems >>
	See al:	so:
	B.7	Add 3 or more numbers up to millions >>
<b>2-4:</b> Subtract Whole Numbers		
<b>2-5:</b> Subtract Across Zeros	C.2	Subtract numbers up to millions >>
	<b>C.4</b>	Subtract numbers up to millions: word problems >>
	See al	so:
	B.5	Addition: fill in the missing digits >>



### Use Strategies and Properties to Multiply by 1-Digit Numbers

Textbook section	IXL skills	
<b>3-1:</b> Mental Math: Multiply by Multiples of 10,100, and 1,000	D.9	Multiplication patterns over increasing place values >>
3-2: Mental Math: Round to Estimate Products	D.13	Estimate products - multiply by 1-digit numbers >>
<b>3-3:</b> The Distributive Property	D.11	Distributive property: find the missing factor >>
3-4: Mental Math Strategies for Multiplication	D.6	Multiply 1-digit numbers by 2-digit numbers >>
	D.7	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
	See als <b>D.10</b>	Properties of multiplication >>
3-5: Arrays and Partial Products	D.6	Multiply 1-digit numbers by 2-digit numbers >>
	D.7	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
<b>3-6:</b> Use Partial Products to Multiply by 1-Digit Numbers	D.6	Multiply 1-digit numbers by 2-digit numbers >>
	D.7	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
<b>3-7:</b> Multiply 2- and 3-Digit Numbers by 1-Digit Numbers	D.6	Multiply 1-digit numbers by 2-digit numbers >>
<b>3-8:</b> Multiply 4-Digit Numbers by 1-Digit Numbers	D.7	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
	See als	50:
	D.8	Multiply 1-digit numbers by larger numbers >>



#### **3-9:** Multiply by 1-Digit Numbers

- **D.6** Multiply 1-digit numbers by 2-digit numbers >>
- **D.7** Multiply 1-digit numbers by 3-digit or 4-digit numbers >>

#### See also:

**D.8** Multiply 1-digit numbers by larger numbers >>

#### 3-10: Model with Math



### Use Strategies and Properties to Multiply by 2-Digit Numbers

Textbook section	IXL skil	lls
4-1: Mental Math: Multiply Multiples of 10		
<b>4-2:</b> Use Models to Multiply 2-Digit Numbers by Multiples of 10		
<b>4-3:</b> Estimate: Use Rounding		
<b>4-4:</b> Estimate: Use Compatible Numbers		
<b>4-5:</b> Arrays and Partial Products		
<b>4-6:</b> Multiply Using the Distributive Property	D.12	Multiply using the distributive property >>
	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
<b>4-7:</b> Use Partial Products to Multiply by 2-Digit Numbers	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
<b>4-8:</b> Multiply 2-Digit Numbers by Multiples of 10		
<b>4-9:</b> Multiply 2-Digit Numbers by 2-Digit Numbers	D.18	Multiply a 2-digit number by a 2-digit number: complete the missing steps >>
	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
<b>4-10:</b> Continue to Multiply by 2-Digit Numbers	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
	BB.8	Area between two rectangles >>
<b>4-11:</b> Make Sense and Persevere	F.4	Word problems with extra or missing information >>



### Use Strategies and Properties to Divide by 1-Digit Numbers

Textbook section	IXL skills		
5-1: Mental Math: Find Quotients	E.14	Divide numbers ending in zeroes by 1-digit numbers >>	
	See als <b>E.13</b>	Division patterns over increasing place values >>	
5-2: Mental Math: Estimate Quotients			
<b>5-3:</b> Mental Math: Estimate Quotients for Greater Dividends	E.15	Divide by 1-digit numbers: estimate quotients >>	
<b>5-4:</b> Interpret Remainders	E.4	Divide 2-digit numbers by 1-digit numbers >>	
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>	
	E.7	Divide 2-digit numbers by 1-digit numbers: interpret remainders >>	
<b>5-5:</b> Division as Sharing	E.4	Divide 2-digit numbers by 1-digit numbers >>	
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>	
<b>5-6:</b> Use Partial Quotients to Divide			
<b>5-7:</b> Use Partial Quotients to Divide: Greater Dividends	E.4	Divide 2-digit numbers by 1-digit numbers >>	
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>	
	E.8	Divide larger numbers by 1-digit numbers >>	
	E.9	Divide larger numbers by 1-digit numbers: word problems >>	
<b>5-8:</b> Divide with 1-Digit Numbers	E.4	Divide 2-digit numbers by 1-digit numbers >>	
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>	



	E.7	Divide 2-digit numbers by 1-digit numbers: interpret remainders >>
<b>5-9:</b> Continue to Divide with 1-Digit Numbers	E.8	Divide larger numbers by 1-digit numbers >>
	E.9	Divide larger numbers by 1-digit numbers: word problems >>
	E.11	Divide larger numbers by 1-digit numbers: interpret remainders >>
	E.15	Divide by 1-digit numbers: estimate quotients >>



### Use Operations with Whole Numbers to Solve Problems

Textbook section	IXL ski	IXL skills	
<b>6-1:</b> Solve Comparison Situations			
<b>6-2:</b> Continue to Solve Comparison Situations			
<b>6-3:</b> Solve Multi-Step Problems	F.4	Word problems with extra or missing information >>	
	F.6	Multi-step word problems >>	
<b>6-4:</b> Solve More Multi-Step Problems	F.6	Multi-step word problems >>	
<b>6-5:</b> Make Sense and Persevere			



### Factors and Multiples

Textbook section	IXL skills	
<b>7-1:</b> Understand Factors		
<b>7-2:</b> Factors	D.5	Identify factors >>
	See als <b>D.2</b>	Multiplication facts up to 12: find the missing factor >>
<b>7-3:</b> Repeated Reasoning		
<b>7-4:</b> Prime and Composite Numbers	A.14	Prime and composite - up to 20 >>
<b>7-5:</b> Multiples	D.4	Choose the multiples of a given number up to 12 >>



### Extend Understanding of Fraction Equivalence and Ordering

Textbook section	IXL skills	
8-1: Equivalent Fractions: Area Models	P.5	Find equivalent fractions using area models >>
8-2: Equivalent Fractions: Number Lines	P.6	Graph equivalent fractions on number lines >>
8-3: Generate Equivalent Fractions: Multiplication	P.7	Equivalent fractions >>
	P.8	Fractions with denominators of 10, 100, and $1000 >>$
	P.9	Patterns of equivalent fractions >>
8-4: Generate Equivalent Fractions: Division	P.7	Equivalent fractions >>
	See als <b>P.10</b>	Write fractions in lowest terms >>
8-5: Use Benchmarks to Compare Fractions	P.15	Benchmark fractions >>
	P.16	Compare fractions using benchmarks >>
8-6: Compare Fractions	P.11	Compare fractions with like numerators or denominators using models >>
	P.12	Graph and compare fractions with like numerators or denominators on number lines >>
	P.13	Compare fractions with like numerators or denominators >>
	P.14	Compare fractions using models >>
	P.17	Compare fractions >>
	P.18	Compare fractions in recipes >>
	P.22	Find smaller or larger fractions >>
	See als	50:
	P.19	Graph and order fractions on number lines >>
	P.20	Order fractions with like numerators or denominators >>
	P.21	Order fractions >>



#### 8-7: Construct Arguments



### **Understand Addition and Subtraction of Fractions**

Textbook section	IXL skills	
9-1: Model Addition of Fractions		
9-2: Decompose Fractions	Q.1 Q.2 Q.3	Decompose fractions into unit fractions >>  Decompose fractions >>  Decompose fractions multiple ways >>
9-3: Add Fractions with Like Denominators	Q.13	Add 3 or more fractions with like denominators >>
9-4: Model Subtraction of Fractions	Q.9	Add and subtract fractions with like denominators >>
	Q.11	Add and subtract fractions with like denominators: word problems >>
	Q.12	Add and subtract fractions with like denominators in recipes >>
9-5: Subtract Fractions with Like Denominators	Q.9	Add and subtract fractions with like denominators >>
	Q.11	Add and subtract fractions with like denominators: word problems >>
	Q.12	Add and subtract fractions with like denominators in recipes >>
<b>9-6:</b> Add and Subtract Fractions with Like Denominators	Q.4	Add fractions with like denominators using number lines >>
	Q.6	Subtract fractions with like denominators using number lines >>
	Q.8	Add and subtract fractions with like denominators using number lines >>
9-7: Estimate Fraction Sums and Differences		
<b>9-8:</b> Model Addition and Subtraction of Mixed Numbers		
9-9: Add Mixed Numbers		



9-10: Subtract Mixed Numbers

**Q.14** Add and subtract mixed numbers with like denominators >>

#### See also:

**P.23** Convert between improper fractions and mixed numbers >>

9-11: Model with Math



### **Extend Multiplication Concepts to Fractions**

Textbook section	IXL skills	
<b>10-1:</b> Fractions as Multiples of Unit Fractions: Use Models	<b>S.3</b>	Multiples of fractions >>
<b>10-2:</b> Multiply a Fraction by a Whole Number: Use Models	S.1	Multiply unit fractions by whole numbers using number lines >>
	<b>S.2</b>	Multiply unit fractions by whole numbers using models >>
	<b>S.6</b>	Multiply unit fractions by whole numbers: word problems >>
	<b>S.7</b>	Multiply fractions by whole numbers using number lines >>
	<b>S.8</b>	Multiply fractions by whole numbers using models >>
	5.12	Multiply fractions by whole numbers: word problems >>
<b>10-3:</b> Multiply a Fraction by a Whole Number: Use Symbols	S.5	Multiply unit fractions by whole numbers >>
	<b>S.6</b>	Multiply unit fractions by whole numbers: word problems >>
	<b>S.10</b>	Multiply fractions by whole numbers >>
	5.12	Multiply fractions by whole numbers: word problems >>
	See als	o:
	<b>S.4</b>	Multiply unit fractions and whole numbers sorting >>
	<b>S.9</b>	Multiply fractions and whole numbers: sorting >>
<b>10-4:</b> Multiply a Whole Number and a Mixed Number		
<b>10-5:</b> Solve Time Problems	0.2	Add and subtract mixed time units >>
	See als	o:
	0.1	Convert time units >>



10-6: Model with Math



### Represent and Interpret Data on Line Plots

Textbook section	IXL ski	IXL skills	
11-1: Read Line Plots	J.6	Interpret line plots >>	
11-2: Make Line Plots	J.6 J.7	Interpret line plots >> Create line plots >>	
11-3: Use Line Plots to Solve Problems	J.8	Create and interpret line plots with fractions >>	
<b>11-4:</b> Critique Reasoning			



### **Understand and Compare Decimals**

Textbook section	n IXL skills	
<b>12-1:</b> Fractions and Decimals	T.1 T.2	What decimal number is illustrated? >> Model decimals and fractions >>
<b>12-2:</b> Fractions and Decimals on the Number Line	T.6	Graph decimals on number lines >>
	T.7	Decimal number lines >>
	Т.8	Graph fractions as decimals on number lines >>
12-3: Compare Decimals	M.2	Compare money amounts >>
	T.14	Compare decimals on number lines >>
	See also:	
	T.5	Equivalent decimals >>
	T.15	Compare decimal numbers >>
	T.16	Put decimal numbers in order I >>
	T.17	Put decimal numbers in order II >>
<b>12-4:</b> Add Fractions with Denominators of 10 and 100	R.5	Add fractions with denominators of 10 and 100 >>
<b>12-5:</b> Solve Word Problems Involving Money	M.6	Making change >>
	M.7	Price lists with addition and subtraction >:
	See also:	
	M.4	Add and subtract money amounts >>
	M.5	Add, subtract, multiply, and divide money amounts >>
	M.8	Price lists with multiplication >>



### Measurement: Find Equivalence in Units of Measure

Textbook section	IXL skills	
13-1: Equivalence with Customary Units of Length		
<b>13-2:</b> Equivalence with Customary Units of Capacity		
13-3: Equivalence with Customary Units of Weight		
<b>13-4:</b> Equivalence with Metric Units of Length		
<b>13-5:</b> Equivalence with Metric Units of Capacity and Mass		
13-6: Solve Perimeter and Area Problems	BB.1	Perimeter >>
	BB.6	Find the area or missing side length of a rectangle >>
	BB.9	Compare area and perimeter of two figures >>
	BB.10	Relationship between area and perimeter >>
13-7: Precision		



### Algebra: Generate and Analyze Patterns

Textbook section	IXL skills		
14-1: Number Sequences			
<b>14-2:</b> Patterns: Number Rules	D.30	Multiplication input/output tables >>	
<b>14-3:</b> Patterns: Repeating Shapes	L.1	Find the next shape in a repeating pattern >>	
	L.2	Complete a repeating pattern >>	
	See also:		
	L.3	Make a repeating pattern >>	
<b>14-4:</b> Look for and Use Structure			



## Geometric Measurement: Understand Concepts of Angles and Angle Measurement

Textbook section	IXL ski	IXL skills	
<b>15-1:</b> Lines, Rays, and Angles	W.4	Lines, line segments, and rays >>	
	<b>Z.1</b>	Acute, right, obtuse, and straight angles >>	
<b>15-2:</b> Understand Angles and Unit Angles	Z.2	Angles of 90, 180, 270, and 360 degrees >>	
<b>15-3:</b> Measure with Unit Angles			
15-4: Measure and Draw Angles	<b>Z.1</b>	Acute, right, obtuse, and straight angles >>	
	<b>Z.3</b>	Measure angles with a protractor >>	
<b>15-5:</b> Add and Subtract Angle Measures	Z.5	Adjacent angles >>	
<b>15-6:</b> Use Appropriate Tools			



### Lines, Angles, and Shapes

Textbook section	IXL ski	IXL skills	
<b>16-1:</b> Lines			
<b>16-2:</b> Classify Triangles	X.1	Acute, obtuse, and right triangles >>	
	X.2	Scalene, isosceles, and equilateral triangles >>	
<b>16-3:</b> Classify Quadrilaterals	X.9	Classify quadrilaterals >>	
<b>16-4:</b> Line Symmetry	Y.1	Identify lines of symmetry >>	
	Y.2	Draw lines of symmetry >>	
	Y.3	Count lines of symmetry >>	
<b>16-5:</b> Draw Shapes with Line Symmetry			
<b>16-6:</b> Critique Reasoning			