



# IXL Skill Alignment

4th alignment for enVisionMATH 2.0 Common Core Edition

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# Topic 1

## Generalize Place Value Understanding

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

## Topic 2

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

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

## Topic 3

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

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**3-10:** Model with Math

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## Topic 4

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

Textbook section	IXL skills
<b>4-1:</b> 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	<b>D.12</b> Multiply using the distributive property >> <b>D.19</b> Multiply a 2-digit number by a 2-digit number >> <b>D.20</b> 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	<b>D.19</b> Multiply a 2-digit number by a 2-digit number >> <b>D.20</b> 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	<b>D.18</b> Multiply a 2-digit number by a 2-digit number: complete the missing steps >> <b>D.19</b> Multiply a 2-digit number by a 2-digit number >> <b>D.20</b> Multiply a 2-digit number by a 2-digit number: word problems >>
<b>4-10:</b> Continue to Multiply by 2-Digit Numbers	<b>D.19</b> Multiply a 2-digit number by a 2-digit number >> <b>D.20</b> Multiply a 2-digit number by a 2-digit number: word problems >> <b>BB.8</b> Area between two rectangles >>
<b>4-11:</b> Make Sense and Persevere	<b>F.4</b> Word problems with extra or missing information >>

## Topic 5

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

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

**E.7** Divide 2-digit numbers by 1-digit numbers: interpret remainders >>

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**5-9:** 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 >>

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**5-10:** Model with Math

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## Topic 6

### Use Operations with Whole Numbers to Solve Problems

Textbook section	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	<b>F.4</b> Word problems with extra or missing information >> <b>F.6</b> Multi-step word problems >>
<b>6-4:</b> Solve More Multi-Step Problems	<b>F.6</b> Multi-step word problems >>
<b>6-5:</b> Make Sense and Persevere	

# Topic 7

## Factors and Multiples

Textbook section	IXL skills
<b>7-1:</b> Understand Factors	
<b>7-2:</b> Factors	<b>D.5</b> Identify factors >>  <i>See also:</i> <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	<b>A.14</b> Prime and composite - up to 20 >>
<b>7-5:</b> Multiples	<b>D.4</b> Choose the multiples of a given number up to 12 >>

# Topic 8

## Extend Understanding of Fraction Equivalence and Ordering

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

## 8-7: Construct Arguments

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# Topic 9

## Understand Addition and Subtraction of Fractions

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

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**9-11:** Model with Math

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# Topic 10

## 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	<b>S.1</b> 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 >>
<b>10-3:</b> Multiply a Fraction by a Whole Number: Use Symbols	<b>S.12</b> Multiply fractions by whole numbers: word problems >>
	<b>S.5</b> 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 >>
	<b>S.12</b> Multiply fractions by whole numbers: word problems >>
	<i>See also:</i>
	<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	<b>O.2</b> Add and subtract mixed time units >>
	<i>See also:</i>
	<b>O.1</b> Convert time units >>

**10-6: Model with Math**

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# Topic 11

## Represent and Interpret Data on Line Plots

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

# Topic 12

## Understand and Compare Decimals

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

# Topic 13

## Measurement: Find Equivalence in Units of Measure

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

# Topic 14

## Algebra: Generate and Analyze Patterns

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

## Topic 15

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

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

# Topic 16

## Lines, Angles, and Shapes

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