



IXL Skill Alignment

Course 1 alignment for Big Ideas Math 2019 Virginia



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Chapter 1

Integers

Textbook section	IXL skills
Section 1.1: Integers	Integers and opposites <ol style="list-style-type: none">Understanding integers 8EPUnderstanding opposite integers X8L Number lines <ol style="list-style-type: none">Integers on number lines K6JGraph integers on horizontal and vertical number lines 36C
Section 1.2: Comparing and Ordering Integers	<ol style="list-style-type: none">Compare integers 4G6Put integers in order CMQ
Section 1.3: Integers and Absolute Value	<ol style="list-style-type: none">Absolute value and integers: word problems 9CWAbsolute value and opposite integers NSB
Section 1.4: The Coordinate Plane	<ol style="list-style-type: none">Objects on a coordinate plane GFNGraph points on a coordinate plane VHQ <p><i>Also consider</i></p> <ul style="list-style-type: none">Describe the coordinate plane KU7Quadrants F5T

Chapter 2

Operations with Integers

Textbook section

IXL skills

Section 2.1: Adding Integers

1. Add integers using counters 4J9
2. Add integers using number lines L95
3. Add integers ZM6
4. Add three or more integers F2N

Section 2.2: Subtracting Integers

1. Subtract integers using counters NYM
2. Subtract integers using number lines EW2
3. Subtract integers WQ6

Also consider

- Add and subtract integers: find the sign HBD
- Add and subtract integers: word problems MP9

Section 2.3: Multiplying and Dividing Integers

Multiplication

1. Multiply integers: find the sign DKA
2. Multiply integers J6V

Division

3. Divide integers: find the sign Q6T
4. Divide integers JZC

Section 2.4: Powers and Exponents

1. Write multiplication expressions using exponents TY5
2. Evaluate exponents XDA

Also consider

- Find the missing exponent or base HC5
- Square numbers 7JR

Section 2.5: Order of Operations

Evaluate expressions

1. Evaluate numerical expressions involving integers K6R
2. Evaluate numerical expressions involving whole numbers MLU



3. Evaluate numerical expressions with parentheses in different places NCR

Also consider

- Identify mistakes involving the order of operations V46
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Chapter 3

Fractions and Mixed Numbers

Textbook section

IXL skills

Section 3.1: Adding Fractions and Mixed Numbers

Section 3.2: Subtracting Fractions and Mixed Numbers

Fractions

1. Add and subtract fractions with like denominators: word problems E56
2. Add and subtract fractions with unlike denominators: word problems WT5
3. Add and subtract fractions with like denominators LNY
4. Add and subtract fractions with unlike denominators AWS

Mixed numbers

5. Add and subtract mixed numbers: word problems X8C
6. Add and subtract mixed numbers TPZ

Section 3.3: Multiplying Fractions and Mixed Numbers

1. Multiply two fractions using models B7P
2. Multiply two fractions E5C
3. Multiply mixed numbers C7B
4. Multiply fractions and mixed numbers: word problems 2QC

Also consider

- Estimate products of fractions and whole numbers EFY
- Estimate products of mixed numbers 5BG
- Multiply three or more mixed numbers, fractions, and/or whole numbers 7FB

Section 3.4: Dividing Fractions

1. Reciprocals R9V
2. Divide fractions LNF
3. Divide fractions: word problems KDQ

Also consider

- Evaluate numerical expressions involving fractions FDK

Section 3.5: Dividing Mixed Numbers

1. Divide fractions and mixed numbers K6K
2. Divide fractions and mixed numbers: word problems MTS

Also consider

- Evaluate numerical expressions involving mixed numbers DR7
 - Estimate quotients when dividing mixed numbers HHV
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Chapter 4

Decimals, Fractions, and Percents

Textbook section

IXL skills

Section 4.1: Adding and Subtracting Decimals

1. Add and subtract decimals 4F6
2. Add and subtract decimals: word problems 97T

Also consider

- Estimate sums and differences of decimals SJ6
- Maps with decimal distances J7D

Section 4.2: Multiplying Decimals

1. Multiply a decimal by a whole number CKB
2. Multiply decimals using grids NY9
3. Multiply decimals 2WT
4. Multiply money amounts: multi-step word problems 99Z

Also consider

- Estimate products of decimals E7N

Section 4.3: Dividing Decimals

1. Divide decimals by whole numbers DZM
2. Divide decimals Y7C
3. Divide decimals by whole numbers: word problems F6H

Also consider

- Estimate decimal quotients KFF
- Inequalities with decimal division 7DK
- Evaluate numerical expressions involving decimals YEE

Section 4.4: Rational Numbers

Convert fractions and decimals

1. Convert fractions to decimals 62Y
2. Convert decimals to fractions HTJ
3. Convert between decimals and fractions FL5
4. Convert between decimals and mixed numbers PD8

Order fractions and decimals

5. Put a mix of decimals and fractions in order MSR
6. Put a mix of decimals, fractions, and mixed numbers in order AWV

Section 4.5: Percents

1. Convert fractions to percents using grid models ZDZ
2. Convert between percents and fractions EZF

Also consider

- Find what percent one number is of another PE7
- Find what percent one number is of another: word problems 49B

Section 4.6: Percents and Decimals

1. Convert between percents and decimals UUP

Also consider

- Represent percents with grid models, decimals, and fractions YZD
- Convert between percents, fractions, and decimals: word problems 7CZ
- Convert between percents, fractions, and decimals ZAV

Section 4.7: Comparing and Ordering Fractions, Decimals, and Percents

1. Compare percents to fractions and decimals 5WY
2. Compare percents and fractions: word problems 9C8
3. Compare percents to each other and to fractions GBY

Chapter 5

Ratios, Rates, and Proportions

Textbook section

IXL skills

Section 5.1: Ratios

Write ratios

1. Write a ratio J64
2. Write a ratio using a fraction XZ2
3. Write a ratio: word problems SBQ

Use tape diagrams

4. Use tape diagrams to solve ratio word problems YMD

Also consider

- Which model represents the ratio? 66V

Section 5.2: Ratio Tables

Equivalent ratios

1. Identify equivalent ratios 2LM
2. Write an equivalent ratio NEA
3. Equivalent ratios: word problems RLZ

Ratio tables

4. Ratio tables PPF

Section 5.3: Rates

1. Unit rates JSZ
2. Ratios and rates: word problems ZB9
3. Compare rates: word problems NAF

Section 5.4: Comparing and Graphing Ratios

1. Compare ratios: word problems 2HT
2. Graph a ratio relationship from a table WJQ
3. Ratios and rates: complete a table and make a graph 6Z2

Also consider

- Graph a ratio relationship: word problems D8A

Section 5.5: Proportions

1. Do the ratios form a proportion? LVW
2. Solve the proportion 7H5

3. Identify proportional relationships from tables YRR

Also consider

- Identify proportional relationships from graphs 48M
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Chapter 6

Algebraic Expressions and Properties

Textbook section	IXL skills
Section 6.1: Algebraic Expressions	<ol style="list-style-type: none"> 1. Write variable expressions with exponents SZA 2. Evaluate variable expressions SY5 3. Identify terms and coefficients 9KE <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Evaluate variable expressions with decimals, fractions, and mixed numbers 49T
Section 6.2: Writing Expressions	<ol style="list-style-type: none"> 1. Write expressions GJC 2. Write variable expressions: word problems 6LQ <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Write variable expressions: two operations CX9
Section 6.3: Properties of Addition and Multiplication	<ol style="list-style-type: none"> 1. Identify properties of addition and multiplication EV5 2. Simplify expressions using properties BYC
Section 6.4: The Distributive Property	<ol style="list-style-type: none"> 1. Multiply using the distributive property 2HH 2. Write equivalent expressions using properties R8H 3. Add and subtract like terms CN9 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Identify equivalent expressions using strip models W5U • Identify equivalent expressions I KFG • Identify equivalent expressions II HTG

Chapter 7

Equations and Inequalities

Textbook section	IXL skills
Section 7.1: Writing Equations in One Variable	<ol style="list-style-type: none"> 1. Write an equation from words AN8 2. Write a one-step equation: word problems YVX <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Identify expressions and equations GCQ
Section 7.2: Solving Equations Using Addition or Subtraction	<ol style="list-style-type: none"> 1. Does x satisfy an equation? VMB 2. Solve one-step addition and subtraction equations MJG 3. Solve one-step addition and subtraction equations: word problems 35Q
Section 7.3: Solving Equations Using Multiplication or Division	<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
Section 7.4: Writing and Graphing Inequalities	<ol style="list-style-type: none"> 1. Solutions to inequalities J2V 2. Graph inequalities on number lines NXN 3. Write inequalities from number lines N99 4. Write and graph inequalities: word problems AGB
Section 7.5: Solving Inequalities Using Addition or Subtraction	<ol style="list-style-type: none"> 1. Solve one-step addition and subtraction inequalities C94

Chapter 8

Geometry

Textbook section	IXL skills
Section 8.1: Regular Polygons and Symmetry	<ol style="list-style-type: none"> 1. Line symmetry PDS 2. Identify and classify polygons YLC
Section 8.2: Congruent Figures	<ol style="list-style-type: none"> 1. Similar and congruent figures S8K
Section 8.3: Perimeters of Rectangles and Triangles	<ol style="list-style-type: none"> 1. Perimeter SEM
Section 8.4: Areas of Rectangles and Triangles	<p>Triangles</p> <ol style="list-style-type: none"> 1. Understanding area of a triangle PLL 2. Area of triangles C8S <p>Squares and rectangles</p> <ol style="list-style-type: none"> 3. Area of rectangles and squares BE9 4. Area and perimeter of squares and rectangles on the coordinate plane UCD
Section 8.5: Circles and Circumference	<ol style="list-style-type: none"> 1. Circumference of circles N6W
Section 8.6: Areas of Circles	<ol style="list-style-type: none"> 1. Area of circles 4S5

Chapter 9

Statistical Measures and Data Analysis

Textbook section	IXL skills
Section 9.1: Mean	<ol style="list-style-type: none">1. Calculate mean BK72. Identify an outlier and describe the effect of removing it 8Q5
Section 9.2: Measures of Center	<ol style="list-style-type: none">1. Calculate median and mode FL92. Changes in mean, median, and mode RDC
Section 9.3: Circle Graphs	<ol style="list-style-type: none">1. Interpret circle graphs 8KT