



IXL Skill Alignment

7th grade alignment for EngageNY Common Core Curriculum



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Module 1

Ratios and Proportional Relationships

Textbook section

IXL skills

Topic A: Proportional Relationships

1. Understanding ratios ZTC
2. Equivalent ratios: word problems DJ8
3. Unit rates 2NB
4. Word problems involving ratios JKY
5. Do the ratios form a proportion? MJQ
6. Do the ratios form a proportion: word problems SHV
7. Solve proportions: word problems WB7
8. Find the constant of proportionality from a table LKZ
9. Identify proportional relationships from graphs and equations NB5
10. Write and solve equations for proportional relationships VKK
11. Unit prices N7G

Also consider

- Identify equivalent ratios ZFM

Topic B: Unit Rate and the Constant of Proportionality

1. Unit rates 2NB
2. Solve proportions: word problems WB7
3. Find the constant of proportionality from a table LKZ
4. Write equations for proportional relationships from tables 6GU
5. Identify proportional relationships from graphs and equations NB5
6. Interpret graphs of proportional relationships RMH
7. Identify independent and dependent variables LK9

Also consider

- Identify proportional relationships by graphing AAN

- Find the constant of proportionality from a graph ZUT
- Write equations for proportional relationships from graphs JKH
- Interpret a graph: word problems 2V5

Topic C: Ratios and Rates Involving Fractions

1. Divide fractions X7A
2. Divide mixed numbers UPF
3. Divide fractions and mixed numbers: word problems 5VR

Topic D: Ratios of Scale Drawings

1. Scale drawings: word problems 84H
 2. Area of rectangles and parallelograms 62H
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Module 2

Rational Numbers

Textbook section

Topic A: Addition and Subtraction of Integers and Rational Numbers

IXL skills

1. Understanding integers YBC
2. Absolute value and opposite integers NSB
3. Integer addition and subtraction rules 6EV
4. Add and subtract integers FNS
5. Absolute value of rational numbers JCX
6. Add and subtract rational numbers GKU

Also consider

- Add and subtract integers using counters B8X
- Complete addition and subtraction equations with integers P6A
- Add and subtract integers: word problems 2DD
- Apply addition and subtraction rules Y8T

Topic B: Multiplication and Division of Integers and Rational Numbers

1. Multiplicative inverses GQG
2. Integer multiplication and division rules 5R8
3. Multiply and divide integers R8D
4. Complete multiplication and division equations with integers K94
5. Convert between decimals and fractions or mixed numbers 8XE
6. Multiply and divide rational numbers BXW

Also consider

- Evaluate numerical expressions involving integers 7YN
- Evaluate numerical expressions involving decimals FNM
- Evaluate numerical expressions involving fractions XXQ
- Apply multiplication and division rules V5V

Topic C: Applying Operations with Rational Numbers to Expressions and Equations

1. Multiplicative inverses GQG
2. Add, subtract, multiply, and divide money amounts: word problems HGN
3. Percent of a number: tax, discount, and more SPN
4. Multi-step problems with percents ZHX
5. Write variable expressions: word problems XMD
6. Evaluate linear expressions UG6
7. Evaluate multi-variable expressions T56
8. Solve two-step equations QEB
9. Solve equations: word problems D2Y

Also consider

- Write equivalent expressions using properties 6XR
 - Write and solve equations that represent diagrams FVH
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Module 3

Expressions and Equations

Textbook section

IXL skills

Topic A: Use Properties of Operations to Generate Equivalent Expressions

1. Multiplicative inverses GQG
2. Evaluate linear expressions UG6
3. Evaluate multi-variable expressions T56
4. Identify terms and coefficients E7H
5. Multiply using the distributive property NUY
6. Write equivalent expressions using properties 6XR
7. Add and subtract linear expressions 6BT
8. Add and subtract like terms: with exponents EQA

Topic B: Solve Problems Using Expressions, Equations, and Inequalities

1. Guess-and-check word problems JSR
2. Solve equations: word problems D2Y
3. Solve equations involving like terms VSW
4. Solutions to inequalities 8BA
5. Graph inequalities on number lines VLU
6. Write inequalities from number lines JNL
7. Solve one-step inequalities QWH
8. Graph solutions to one-step inequalities TFK
9. Solve two-step inequalities XGQ
10. Graph solutions to two-step inequalities 6TT
11. Identify complementary, supplementary, vertical, and adjacent angles HKG
12. Find measures of complementary, supplementary, vertical, and adjacent angles CST

Also consider

- Which x satisfies an equation? DJS
- Write and solve equations that represent diagrams FVH
- Name, measure, and classify angles 2UG

Topic C: Use Equations and Inequalities to Solve Geometry Problems

1. Area of circles YA8
2. Circumference of circles KS7
3. Circles: word problems P56
4. Volume of cubes and prisms URT
5. Surface area of cubes and prisms RFP
6. Semicircles: calculate area, perimeter, radius, and diameter SMW
7. Quarter circles: calculate area, perimeter, and radius WK8
8. Area of compound figures with triangles, semicircles, and quarter circles N97
9. Area between two shapes RKC

Also consider

- Front, side, and top view 9Q3
 - Area of rectangles and parallelograms 62H
 - Area of triangles and trapezoids ENE
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Module 4

Percent and Proportional Relationships

Textbook section

IXL skills

Topic A: Finding the Whole

1. Convert between percents, fractions, and decimals 2HW
2. Compare percents to fractions and decimals JAE
3. Percents of numbers and money amounts 93K
4. Percents of numbers: word problems EXE
5. Solve percent equations 67F
6. Solve percent equations: word problems JS6
7. Percent of change BL7
8. Percent of change: word problems 54S

Also consider

- What percentage is illustrated? D7D

Topic B: Percent Problems Including More Than One Whole

1. Identify proportional relationships from graphs and equations NB5
2. Estimate percents of numbers 29D
3. Percent of a number: tax, discount, and more SPN
4. Find the percent: tax, discount, and more PBM
5. Sale prices: find the original price BDA
6. Multi-step problems with percents ZHX
7. Estimate tips Y5R
8. Simple interest E7Y

Topic C: Scale Drawings

Topic D: Population, Mixture, and Counting Problems Involving Percents

Module 5

Statistics and Probability

Textbook section	IXL skills
Topic A: Calculating and Interpreting Probabilities	
Topic B: Estimating Probabilities	
Topic C: Random Sampling and Estimating Population Characteristics	1. Identify representative, random, and biased samples 5V3
Topic D: Comparing Populations	

Module 6

Geometry

Textbook section	IXL skills
Topic A: Unknown Angles	<ol style="list-style-type: none"> 1. Identify complementary, supplementary, vertical, and adjacent angles <small>HKG</small> 2. Find measures of complementary, supplementary, vertical, and adjacent angles <small>CST</small>
Topic B: Constructing Triangles	
Topic C: Slicing Solids	
Topic D: Problems Involving Area and Surface Area	<ol style="list-style-type: none"> 1. Surface area of cubes and prisms <small>RFP</small> 2. Area of compound figures with triangles, semicircles, and quarter circles <small>N97</small> 3. Area between two shapes <small>RKC</small> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Semicircles: calculate area, perimeter, radius, and diameter <small>SMW</small> • Quarter circles: calculate area, perimeter, and radius <small>WK8</small>
Topic E: Problems Involving Volume	<ol style="list-style-type: none"> 1. Volume of cubes and prisms <small>URT</small> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Perimeter and area: changes in scale <small>ZC6</small>