



# IXL Skill Alignment

7th grade alignment for Glencoe Math Common Core Edition



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# Chapter 1

## Ratios and Proportional Reasoning

| Textbook section  | IXL skills  |
|---|---|
| <b>Lesson 1:</b> Rates  | <ol style="list-style-type: none"><li>1. Unit rates 2NB</li><li>2. Unit prices N7G</li></ol>  |
| <b>Lesson 2:</b> Complex Fractions and Unit Rates               | <ol style="list-style-type: none"><li>1. Divide fractions X7A</li></ol>   |
| <b>Lesson 3:</b> Convert Unit Rates                             | <ol style="list-style-type: none"><li>1. Unit prices with unit conversions KJ8</li></ol>  |
| <b>Lesson 4:</b> Proportional and Nonproportional Relationships | <ol style="list-style-type: none"><li>1. Identify equivalent ratios ZFM</li><li>2. Equivalent ratios: word problems DJ8</li><li>3. Do the ratios form a proportion? MJQ</li><li>4. Do the ratios form a proportion: word problems SHV</li></ol> |
| <b>Lesson 5:</b> Graph Proportional Relationships               | <ol style="list-style-type: none"><li>1. Identify proportional relationships by graphing AAN</li><li>2. Identify proportional relationships from graphs and equations NB5</li></ol>   |
| <b>Lesson 6:</b> Solve Proportional Relationships               | <ol style="list-style-type: none"><li>1. Solve proportions TDA</li><li>2. Solve proportions: word problems WB7</li><li>3. Estimate population size using proportions 3C9</li></ol>  |
| <b>Lesson 7:</b> Constant Rate of Change                        | <ol style="list-style-type: none"><li>1. Constant rate of change TWW</li><li>2. Interpret graphs of proportional relationships RMH</li></ol>  |
| <b>Lesson 8:</b> Slope  | <ol style="list-style-type: none"><li>1. Find the slope from a graph YH9</li></ol>  |
| <b>Lesson 9:</b> Direct Variation                               | <ol style="list-style-type: none"><li>1. Find the constant of proportionality from a table LKZ</li><li>2. Find the constant of proportionality from a graph ZUT</li></ol>   |



# Chapter 2

## Percents

| Textbook section                                     | IXL skills   |
|--|--|
| <b>Lesson 1:</b> Percent of a Number                 | <ol style="list-style-type: none"> <li>1. Percents of numbers and money amounts 93K</li> <li>2. Percents of numbers: word problems EXE</li> </ol>  |
| <b>Lesson 2:</b> Percent and Estimation              | <ol style="list-style-type: none"> <li>1. Estimate percents of numbers 29D</li> </ol>  |
| <b>Lesson 3:</b> The Percent Proportion              |  |
| <b>Lesson 4:</b> The Percent Equation                | <ol style="list-style-type: none"> <li>1. Solve percent equations 67F</li> <li>2. Solve percent equations: word problems JS6</li> </ol>  |
| <b>Lesson 5:</b> Percent of Change                   | <ol style="list-style-type: none"> <li>1. Percent of change BL7</li> <li>2. Percent of change: word problems 54S</li> </ol>  |
| <b>Lesson 6:</b> Sales Tax, Tips, and Markup         |  |
| <b>Lesson 7:</b> Discount                            | <ol style="list-style-type: none"> <li>1. Percent of a number: tax, discount, and more SPN</li> <li>2. Find the percent: tax, discount, and more PBM</li> <li>3. Sale prices: find the original price BDA</li> <li>4. Multi-step problems with percents ZHX</li> </ol> |
| <b>Lesson 8:</b> Financial Literacy: Simple Interest | <ol style="list-style-type: none"> <li>1. Simple interest E7Y</li> </ol>   |

# Chapter 3

## Integers

| Textbook section                             | IXL skills  |
|--|---|
| <b>Lesson 1:</b> Integers and Absolute Value | <ol style="list-style-type: none"><li data-bbox="847 449 1268 483">1. Understanding integers YBC</li><li data-bbox="847 497 1281 531">2. Integers on number lines A5Y</li><li data-bbox="847 546 1433 611">3. Graph integers on horizontal and vertical number lines EM8</li><li data-bbox="847 625 1450 659">4. Absolute value and opposite integers NSB</li></ol>   |
| <b>Lesson 2:</b> Add Integers                |   |
| <b>Lesson 3:</b> Subtract Integers           | <ol style="list-style-type: none"><li data-bbox="847 795 1455 829">1. Integer addition and subtraction rules 6EV</li><li data-bbox="847 844 1505 877">2. Add and subtract integers using counters B8X</li><li data-bbox="847 892 1300 926">3. Add and subtract integers FNS</li><li data-bbox="847 940 1490 1005">4. Complete addition and subtraction equations with integers P6A</li><li data-bbox="847 1020 1513 1054">5. Add and subtract integers: word problems 2DD</li></ol> |
| <b>Lesson 4:</b> Multiply Integers           |   |
| <b>Lesson 5:</b> Divide Integers             | <ol style="list-style-type: none"><li data-bbox="847 1188 1476 1222">1. Integer multiplication and division rules 5R8</li><li data-bbox="847 1236 1321 1270">2. Multiply and divide integers R8D</li><li data-bbox="847 1285 1515 1350">3. Complete multiplication and division equations with integers K94</li></ol>   |

# Chapter 4

## Rational Numbers

| Textbook section                                    | IXL skills  |
|---|---|
| <b>Lesson 1:</b> Terminating and Repeating Decimals | <ol style="list-style-type: none"> <li>1. Convert between decimals and fractions or mixed numbers 8XE</li> </ol>  |
| <b>Lesson 2:</b> Compare and Order Rational Numbers | <ol style="list-style-type: none"> <li>1. Compare rational numbers JVR</li> <li>2. Put rational numbers in order 28Y</li> </ol>   |
| <b>Lesson 3:</b> Add and Subtract Like Fractions    |   |
| <b>Lesson 4:</b> Add and Subtract Unlike Fractions  | <ol style="list-style-type: none"> <li>1. Add and subtract fractions NGL</li> <li>2. Add and subtract fractions: word problems ENL</li> </ol>   |
| <b>Lesson 5:</b> Add and Subtract Mixed Numbers     | <ol style="list-style-type: none"> <li>1. Add and subtract mixed numbers 9BE</li> <li>2. Add and subtract mixed numbers: word problems 6YT</li> </ol>   |
| <b>Lesson 6:</b> Multiply Fractions                 | <ol style="list-style-type: none"> <li>1. Multiply fractions and whole numbers ZNQ</li> <li>2. Multiply fractions PDK</li> <li>3. Multiply mixed numbers JNY</li> <li>4. Multiply fractions and mixed numbers: word problems 5NJ</li> </ol> |
| <b>Lesson 7:</b> Convert Between Systems            | <ol style="list-style-type: none"> <li>1. Convert between customary and metric systems E8Z</li> </ol>   |
| <b>Lesson 8:</b> Divide Fractions                   | <ol style="list-style-type: none"> <li>1. Divide fractions X7A</li> <li>2. Divide mixed numbers UPF</li> <li>3. Divide fractions and mixed numbers: word problems 5VR</li> </ol>  |

# Chapter 5

## Expressions

| Textbook section                                | IXL skills   |
|---|--|
| <b>Lesson 1:</b> Algebraic Expressions          | <ol style="list-style-type: none"><li>1. Write variable expressions: two or three operations <small>EGS</small></li><li>2. Write variable expressions: word problems <small>XMD</small></li><li>3. Evaluate linear expressions <small>UG6</small></li><li>4. Evaluate multi-variable expressions <small>T56</small></li><li>5. Evaluate nonlinear expressions <small>ZHY</small></li></ol> |
| <b>Lesson 2:</b> Sequences                      | <ol style="list-style-type: none"><li>1. Arithmetic sequences <small>CYC</small></li><li>2. Write variable expressions for arithmetic sequences <small>AJD</small></li></ol>   |
| <b>Lesson 3:</b> Properties of Operations       |  |
| <b>Lesson 4:</b> The Distributive Property      | <ol style="list-style-type: none"><li>1. Properties of addition and multiplication <small>D6G</small></li><li>2. Multiply using the distributive property <small>NUY</small></li></ol>   |
| <b>Lesson 5:</b> Simplify Algebraic Expressions | <ol style="list-style-type: none"><li>1. Write equivalent expressions using properties <small>6XR</small></li><li>2. Add and subtract like terms: with exponents <small>EQA</small></li><li>3. Identify equivalent linear expressions II <small>KAR</small></li></ol>  |
| <b>Lesson 6:</b> Add Linear Expressions         |  |
| <b>Lesson 7:</b> Subtract Linear Expressions    | <ol style="list-style-type: none"><li>1. Add and subtract linear expressions <small>6BT</small></li></ol>  |

# Chapter 6

## Equations and Inequalities

| Textbook section   | IXL skills  |
|--|---|
| <b>Lesson 1:</b> Solve One-Step Addition and Subtraction Equations |   |
| <b>Lesson 2:</b> Multiplication and Division Equations             | 1. Solve one-step equations WKM   |
| <b>Lesson 3:</b> Solve Equations with Rational Coefficients        | 1. Solve one-step equations WKM   |
| <b>Lesson 4:</b> Solve Two-Step Equations                          | 1. Model and solve equations using algebra tiles EGK<br>2. Write and solve equations that represent diagrams FVH<br>3. Solve two-step equations QEB |
| <b>Lesson 5:</b> More Two-Step Equations                           | 1. Solve equations: word problems D2Y<br>2. Solve equations: complete the solution 66R  |
| <b>Lesson 6:</b> Solve Inequalities by Addition or Subtraction     |   |
| <b>Lesson 7:</b> Solve Inequalities by Multiplication or Division  | 1. Solve one-step inequalities QWH<br>2. Graph solutions to one-step inequalities TFK   |
| <b>Lesson 8:</b> Solve Two-Step Inequalities                       | 1. Solve two-step inequalities XGQ<br>2. Graph solutions to two-step inequalities 6TT   |

# Chapter 7

## Geometric Figures

| Textbook section  | IXL skills   |
|---|--|
| <b>Lesson 1:</b> Classify Angles                        | 1. Name, measure, and classify angles 2UG  |
| <b>Lesson 2:</b> Complementary and Supplementary Angles | 1. Identify complementary, supplementary, vertical, and adjacent angles HKG<br>2. Find measures of complementary, supplementary, vertical, and adjacent angles CST |
| <b>Lesson 3:</b> Triangles                              | 1. Classify triangles N5Z<br>2. Find missing angles in triangles 4U6   |
| <b>Lesson 4:</b> Scale Drawings                         | 1. Scale drawings: word problems 84H   |
| <b>Lesson 5:</b> Draw Three-Dimensional Figures         | 1. Front, side, and top view 9Q3   |
| <b>Lesson 6:</b> Cross Sections                         | 1. Bases of three-dimensional figures RF6<br>2. Cross sections of three-dimensional figures HFJ  |



# Chapter 8

## Measure Figures

| Textbook section  | IXL skills  |
|---|---|
| <b>Lesson 1:</b> Circumference                                | <ol style="list-style-type: none"><li>1. Parts of a circle 2VL</li><li>2. Circumference of circles KS7</li></ol>  |
| <b>Lesson 2:</b> Area of Circles                              | <ol style="list-style-type: none"><li>1. Area of circles YA8</li><li>2. Circles: word problems P56</li></ol>  |
| <b>Lesson 3:</b> Area of Composite Figures                    | <ol style="list-style-type: none"><li>1. Area of compound figures with triangles, semicircles, and quarter circles N97</li><li>2. Area between two shapes RKC</li></ol> |
| <b>Lesson 4:</b> Volume of Prisms                             | <ol style="list-style-type: none"><li>1. Volume of cubes and prisms URT</li></ol>   |
| <b>Lesson 5:</b> Volume of Pyramids                           |   |
| <b>Lesson 6:</b> Surface Area of Prisms                       | <ol style="list-style-type: none"><li>1. Surface area of cubes and prisms RFP</li></ol>   |
| <b>Lesson 7:</b> Surface Area of Pyramids                     |   |
| <b>Lesson 8:</b> Volume and Surface Area of Composite Figures |   |

# Chapter 9

## Probability

| Textbook section  | IXL skills   |
|---|--|
| <b>Lesson 1:</b> Probability of Simple Events             | 1. Probability of simple events ZZB  |
| <b>Lesson 2:</b> Theoretical and Experimental Probability | 1. Probability of simple events and opposite events F88<br>2. Experimental probability 9AA                 |
| <b>Lesson 3:</b> Probability of Compound Events           | 1. Compound events: find the number of outcomes HZR  |
| <b>Lesson 4:</b> Simulations                              |  |
| <b>Lesson 5:</b> Fundamental Counting Principle           | 1. Find the number of outcomes: word problems EKX  |
| <b>Lesson 6:</b> Permutations                             | 1. Permutations 7UB  |
| <b>Lesson 7:</b> Independent and Dependent Events         | 1. Identify independent and dependent events 9M6<br>2. Probability of independent and dependent events NED |

# Chapter 10

## Statistics

| Textbook section                                  | IXL skills   |
|---|--|
| <b>Lesson 1:</b> Make Predictions                 | 1. Estimate population size using proportions 3C9                        |
| <b>Lesson 2:</b> Unbiased and Biased Samples      | 1. Identify representative, random, and biased samples 5V3               |
| <b>Lesson 3:</b> Misleading Graphs and Statistics | 1. Interpret charts and graphs to find mean, median, mode, and range CYK |
| <b>Lesson 4:</b> Compare Populations              |  |
| <b>Lesson 5:</b> Select and Appropriate Display   | 1. Choose the best type of graph RMW                                     |