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Chapter 1

Solving Linear Equations

Textbook section	IXL skills
Lesson 1.1: Solving Simple Equations	1. Solve one-step linear equations TXJ 2. Solve one-step linear equations: word problems UXX 3. Properties of equality H8Q *Also consider* • Multiply using the distributive property KWG
Lesson 1.2: Solving Multi-Step Equations	1. Solve two-step linear equations QAK 2. Solve one-step and two-step linear equations: word problems UFG 3. Solve advanced linear equations 28N *Also consider* • Write variable equations YVW
Lesson 1.3: Solving Equations with Variables on Both Sides	1. Solve linear equations with variables on both sides 7S7 2. Find the number of solutions to a linear equation KBP *Also consider* • Solve linear equations: complete the solution EVP • Solve linear equations: mixed review DN6 • Create linear equations with no solutions or infinitely many solutions PUK
Lesson 1.4: Solving Absolute Value Equations	1. Solve absolute value equations 9LF 2. Graph solutions to absolute value equations KXA *Also consider* • Absolute value and opposites KGR

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Lesson 1.5: Rewriting Equations and Formulas

1. Linear equations: solve for y T5F
2. Rearrange multi-variable equations WSJ

Also consider

- Simple interest Q8G
- Rate of travel: word problems 2C8

Chapter 2

Solving Linear Inequalities

Textbook section	IXL skills
Lesson 2.1: Writing and Graphing Inequalities	1. Graph inequalities H68 2. Write inequalities from graphs SEK 3. Identify solutions to inequalities 5UE *Also consider* • Set-builder notation HMC
Lesson 2.2: Solving Inequalities Using Addition or Subtraction	1. Solve one-step linear inequalities: addition and subtraction RZV
Lesson 2.3: Solving Inequalities Using Multiplication or Division	1. Solve one-step linear inequalities: multiplication and division BRJ 2. One-step inequalities: word problems UFD *Also consider* • Graph solutions to one-step linear inequalities E2Z
Lesson 2.4: Solving Multi-Step Inequalities	1. Graph solutions to two-step linear inequalities XVM 2. Graph solutions to advanced linear inequalities 5GC *Also consider* • Solve two-step linear inequalities NPZ • Solve advanced linear inequalities 9K8
Lesson 2.5: Solving Compound Inequalities	1. Write compound inequalities from graphs 6UV 2. Graph solutions to compound inequalities LHX *Also consider* • Graph compound inequalities BQX • Solve compound inequalities GXA

Lesson 2.6: Solving Absolute Value Inequalities	1. Solve absolute value inequalities HXH 2. Graph solutions to absolute value inequalities NE9
Checkpoint opportunity	**Chapters 1–2** 1. Checkpoint: Solve linear equations and inequalities VYL

Chapter 3

Graphing Linear Functions

Textbook section	IXL skills
Lesson 3.1: Functions	1. Identify functions VLL 2. Identify functions: vertical line test HLX 3. Identify independent and dependent variables N55 *Also consider* • Relations: convert between tables, graphs, mappings, and lists of points RBG • Domain and range of relations 2CG
Lesson 3.2: Linear Functions	1. Identify linear functions from graphs and equations LYF 2. Identify linear functions from tables F5G
Lesson 3.3: Function Notation	1. Interpret the graph of a function: word problems STU 2. Interpret functions using everyday language U98 3. Complete a table and graph a linear function JFG *Also consider* • Evaluate a linear function LMN • Find values using function graphs TJM
Lesson 3.4: Graphing Linear Equations in Standard Form	1. Graph a horizontal or vertical line BTK 2. Standard form: graph an equation U6U *Also consider* • Standard form: find x- and y-intercepts 8SN • Equations of horizontal and vertical lines K8H • Relate the graph of an equation to its solutions L8U

Lesson 3.5: Graphing Linear Equations in Slope-Intercept Form	1. Find the slope of a graph E7D 2. Slope-intercept form: find the slope and y-intercept R5T 3. Slope-intercept form: graph an equation UWB 4. Interpret the slope and y-intercept of a linear function RPQ *Also consider* • Find the slope from two points MD5 • Find a missing coordinate using slope 5C7
Lesson 3.6: Transformations of Graphs of Linear Functions	1. Transformations of linear functions C8G 2. Describe linear transformations HPC *Also consider* • Function transformation rules ZEG • Compare linear functions: tables, graphs, and equations GD7
Checkpoint opportunity	1. Checkpoint: Function concepts HBK

Chapter 4

Writing Linear Functions

Textbook section	IXL skills
Lesson 4.1: Writing Equations in Slope-Intercept Form	1. Slope-intercept form: write an equation A42 2. Slope-intercept form: write an equation from a graph 9GW 3. Write and solve two-variable linear equations: word problems 9RQ *Also consider* • Slope-intercept form: write an equation from a table SSE
Lesson 4.2: Writing Equations in Point-Slope Form	1. Point-slope form: write an equation PPE 2. Point-slope form: write an equation from a graph LBX
Lesson 4.3: Writing Equations of Parallel and Perpendicular Lines	1. Write an equation for a parallel or perpendicular line 5SH *Also consider* • Slopes of parallel and perpendicular lines ADB
Lesson 4.4: Scatter Plots and Lines of Fit	1. Interpret a scatter plot 8BS 2. Write equations for lines of best fit Y2S *Also consider* • Create scatter plots HZJ
Lesson 4.5: Analyzing Lines of Fit	1. Analyze a regression line of a data set 8D8 2. Calculate correlation coefficients E8T 3. Correlation and causation KPG *Also consider* • Match correlation coefficients to scatter plots FQ7

Lesson 4.6: Arithmetic Sequences	1. Arithmetic sequences ALG 2. Write variable expressions for arithmetic sequences 5VF
Checkpoint opportunity	1. Checkpoint: Linear modeling U7N

Chapter 5

Solving Systems of Linear Equations

Textbook section	IXL skills
Lesson 5.1: Solving a System of Equations by Graphing	1. Is (x, y) a solution to the system of equations? LRL 2. Solve a system of equations by graphing TSS 3. Solve a system of equations by graphing: word problems BVB
Lesson 5.2: Solving a System of Linear Equations by Substitution	1. Solve a system of equations using substitution 8P9 2. Solve a system of equations using substitution: word problems US9
Lesson 5.3: Solving a System of Linear Equations by Elimination	1. Solve a system of equations using elimination A48 2. Solve a system of equations using elimination: word problems NHR
Lesson 5.4: Solving Special Systems of Linear Equations	1. Find the number of solutions to a system of equations ACN 2. Solve a system of equations using any method: word problems GDQ *Also consider* • Write a system of equations given a graph R78 • Find the number of solutions to a system of equations by graphing HJW • Solve a system of equations using any method HLV • Classify a system of equations LTA
Lesson 5.5: Solving Equations by Graphing	
Lesson 5.6: Graphing Linear Inequalities in Two Variables	1. Does (x, y) satisfy the inequality? N9L 2. Graph a two-variable linear inequality HHP 3. Write two-variable inequalities: word problems ZAY

	Also consider • Write a linear inequality from a graph N9W • Linear inequalities: solve for y UYU
Lesson 5.7: Systems of Linear Inequalities	1. Is (x, y) a solution to the system of linear inequalities? VFC 2. Solve systems of linear inequalities by graphing SGH
Checkpoint opportunity	**Chapter 5** 1. Checkpoint: Systems of equations and inequalities LQW **Chapters 3–5** 2. Checkpoint: Represent constraints 2VV

Chapter 6

Exponential Functions and Sequences

Textbook section	IXL skills
Lesson 6.1: Exponential Functions	1. Identify linear and exponential functions from graphs and tables 8N3 2. Match exponential functions and graphs I BYF 3. Graph exponential functions 5QL 4. Write exponential functions: word problems LZW 5. Domain and range of exponential functions LXE *Also consider* • Match exponential functions and graphs II 72J • Write linear and exponential functions from tables JGJ • Compare linear and exponential growth YSZ
Lesson 6.2: Exponential Growth and Decay	1. Exponential growth and decay: word problems 8A6 2. Compound interest: word problems QSF *Also consider* • Write linear and exponential functions: word problems T84 • Describe linear and exponential growth and decay S7T
Lesson 6.3: Comparing Linear and Exponential Functions	1. Identify linear and exponential functions from graphs and tables 8N3 2. Write linear and exponential functions from tables JGJ 3. Compare linear and exponential growth YSZ *Also consider* • Rate of change: tables PLA
Lesson 6.4: Solving Exponential Equations	1. Solve exponential equations by rewriting the base G5H

Lesson 6.5: Geometric Sequences

1. Identify arithmetic and geometric sequences X76
2. Geometric sequences HLJ
3. Write variable expressions for geometric sequences XPC

Also consider

- Evaluate variable expressions for number sequences PMN

Lesson 6.6: Recursively Defined Sequences

1. Evaluate recursive formulas for sequences 9YD
2. Write a formula for a recursive sequence KP9
3. Convert a recursive formula to an explicit formula ZBQ
4. Convert an explicit formula to a recursive formula 42Y

Also consider

- Identify a sequence as explicit or recursive Y9B

Checkpoint opportunity

Chapters 1–6

1. Checkpoint: Expressions, equations, and inequalities QS2
2. Checkpoint: Graph and interpret functions 9QV
3. Checkpoint: Solve equations using graphs and tables 8JR
4. Checkpoint: Average rate of change DUS
5. Checkpoint: Build functions XF6
6. Checkpoint: Compare linear and exponential functions KSL
7. Checkpoint: Sequences 5W7

Chapter 7

Data Analysis and Displays

Textbook section	IXL skills
Lesson 7.1: Measures of Center and Variation	1. Mean, median, mode, and range MHB 2. Standard deviation WA2 3. Identify an outlier and describe the effect of removing it XGC *Also consider* • Identify an outlier 87L
Lesson 7.2: Box-and-Whisker Plots	1. Box plots YE9 2. Calculate quartiles and interquartile range 8H9
Lesson 7.3: Shapes of Distributions	
Lesson 7.4: Two-Way Tables	1. Find probabilities using two-way frequency tables 93R 2. Find conditional probabilities using two-way frequency tables BZZ
Lesson 7.5: Choosing a Data Display	1. Interpret line plots, histograms, and box plots UCW *Also consider* • Create line plots, histograms, box plots, and stem-and-leaf plots FZJ
Checkpoint opportunity	1. Checkpoint: Line plots, histograms, and box plots UVL 2. Checkpoint: Compare data sets DJA 3. Checkpoint: Two-way frequency tables 5GL 4. Checkpoint: Units and quantities CBX

Chapter 8

Basics of Geometry

Textbook section	IXL skills
Lesson 8.1: Points, Lines, and Planes	1. Lines, line segments, and rays XFC
Lesson 8.2: Measuring and Constructing Segments	1. Construct a congruent segment LRJ 2. Additive property of length 7RA *Also consider* • Lengths of segments on number lines JSD
Lesson 8.3: Using Midpoint and Distance Formulas	1. Midpoints 7RH 2. Midpoint formula: find the midpoint 2YG 3. Midpoint formula: find the endpoint EUW 4. Distance formula 59F
Lesson 8.4: Perimeter and Area in the Coordinate Plane	1. Polygon vocabulary 6MK 2. Area and perimeter in the coordinate plane I QWZ 3. Area and perimeter in the coordinate plane II MHQ *Also consider* • Area of compound figures with rectangles and triangles LK7 • Construct an equilateral triangle inscribed in a circle RBF • Construct a regular hexagon inscribed in a circle MCM
Lesson 8.5: Measuring and Constructing Angles	1. Classify angles VLH 2. Construct a congruent angle F7V 3. Construct an angle bisector FHL *Also consider* • Angle vocabulary 9U2 • Angle measures BCQ • Find measures of bisected angles PEM

Lesson 8.6: Describing Pairs of Angles	1. Identify complementary, supplementary, vertical, adjacent, and congruent angles 7P7 2. Find measures of complementary, supplementary, vertical, and adjacent angles VZU 3. Angle diagrams: solve for the variable AKB
Checkpoint opportunity	1. Checkpoint: Area and perimeter in the coordinate plane 9VT

Chapter 9

Reasoning and Proofs

Textbook section	IXL skills
Lesson 9.1: Conditional Statements	1. Identify hypotheses and conclusions 7FW 2. Converses, inverses, and contrapositives N5P *Also consider* • Negations VBY • Conditionals VU9 • Biconditionals Q6E
Lesson 9.2: Inductive and Deductive Reasoning	1. Counterexamples 2GJ
Lesson 9.3: Postulates and Diagrams	1. Properties of planes, lines, and points SVU
Lesson 9.4: Proving Statements about Segments and Angles	1. Proofs involving angles: justify a statement 22Z *Also consider* • Properties of equality 6KC
Lesson 9.5: Proving Geometric Relationships	1. Proofs involving angles HV9

Chapter 10

Parallel and Perpendicular Lines

Textbook section	IXL skills
Lesson 10.1: Pairs of Lines and Angles	1. Identify parallel, intersecting, and skew lines and planes QZD 2. Transversals: name angle pairs V85
Lesson 10.2: Parallel Lines and Transversals	1. Transversals of parallel lines: find angle measures WB9 2. Transversals of parallel lines: solve for x RSV 3. Transversals of parallel lines: prove angle relationships 6QF
Lesson 10.3: Proofs with Parallel Lines	1. Construct parallel lines 6EB 2. Transversals: prove lines are parallel WFL
Lesson 10.4: Proofs with Perpendicular Lines	1. Construct a perpendicular line BZR 2. Construct the midpoint or perpendicular bisector of a segment HDT
Lesson 10.5: Using Parallel and Perpendicular Lines	1. Find the distance between a point and a line GWC 2. Find the distance between two parallel lines A7B *Also consider* • Slopes of parallel and perpendicular lines 6K2 • Equations of parallel and perpendicular lines VEB • Proofs involving parallel lines I CUV
Checkpoint opportunity	**Chapter 8** 1. Checkpoint: Parallel and perpendicular lines JR9 **Chapters 8–10** 2. Checkpoint: Geometric constructions C8Z 3. Checkpoint: Definitions of geometric objects 2JF

Chapter 11
Transformations

Textbook section	IXL skills
Lesson 11.1: Translations	1. Find the component form of a vector 2UV 2. Translations: graph the image 7AC 3. Translations: find the coordinates F8U 4. Translations: write the rule 9PR
Lesson 11.2: Reflections	1. Reflections: graph the image SM9 2. Reflections: find the coordinates SVY 3. Glide reflections: graph the image KSS 4. Draw lines of symmetry JU7 *Also consider* • Count lines of symmetry M7U
Lesson 11.3: Rotations	1. Rotate polygons about a point 9PZ 2. Rotations: graph the image 6SD 3. Rotational symmetry ERP *Also consider* • Rotations: find the coordinates ZX5 • Reflections and rotations: write the rule DMC
Lesson 11.4: Congruence and Transformations	1. Sequences of congruence transformations: graph the image WHW 2. Sequences of congruence transformations: find the rules GFH *Also consider* • Congruence transformations: mixed review XQ7 • Transformations that carry a polygon onto itself RJW
Checkpoint opportunity	1. Checkpoint: Transformations of geometric figures D5L 2. Checkpoint: Transformations in the plane KQ6

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Chapter 12

Congruent Triangles

Textbook section	IXL skills
Lesson 12.1: Angles of Triangles	1. Classify triangles TNN 2. Triangle Angle-Sum Theorem UBU 3. Exterior Angle Theorem TGK *Also consider* • Proofs involving triangles I G78
Lesson 12.2: Congruent Polygons	1. Congruence statements and corresponding parts CYL 2. Solve problems involving corresponding parts WYB 3. Identify congruent figures HU9
Lesson 12.3: Proving Triangle Congruence by SAS	1. Proofs involving SAS WDB
Lesson 12.4: Equilateral and Isosceles Triangles	1. Congruency in isosceles and equilateral triangles HPR *Also consider* • Construct an equilateral triangle or regular hexagon USF
Lesson 12.5: Proving Triangle Congruence by SSS	1. Proofs involving SSS 9P6 *Also consider* • SSS and SAS Theorems 48Q • Proving triangles congruent by SSS and SAS VVZ • Hypotenuse-Leg Theorem VQJ
Lesson 12.6: Proving Triangle Congruence by ASA and AAS	1. ASA and AAS Theorems N94 2. Proving triangles congruent by ASA and AAS 23Z *Also consider* • Proving triangles congruent by SSS, SAS, ASA, and AAS SZL • Proofs involving isosceles triangles V45

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Lesson 12.7: Using Congruent Triangles	1. Proofs involving corresponding parts of congruent triangles AKL 2. SSS, SAS, ASA, and AAS Theorems LER
Lesson 12.8: Coordinate Proofs	1. SSS Theorem in the coordinate plane C5G 2. Classify triangles on the coordinate plane: justify your answer 5TN
Checkpoint opportunity	1. Checkpoint: Rigid motion and congruence H9L