

SADLIER

Standards-Based Progress Mathematics

Aligned to the Chapter 111.

Texas Essential Knowledge and Skills (TEKS) for Mathematics

Subchapter B. Middle School, §111.27, Grade 7,
Adopted 2012.

Grade 7

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(b) Knowledge and skills

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

- (2) Number and operations. The student applies mathematical process standards to represent and use rational numbers in a variety of forms. The student is expected to extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers.

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

- Lesson 8 Understand Addition of Integers**—pp. 72–79
- Understand: Using a number line to add integers
 - Understand: Using absolute values to add two integers
-
- Lesson 9 Understand Subtraction of Integers**—pp. 80–87
- Understand: Subtracting integers
-
- Lesson 10 Add and Subtract Rational Numbers**—pp. 88–95
- Understand: Adding rational numbers that are not integers
 - Understand: Subtracting rational numbers that are not integers
-
- Lesson 11 Understand Multiplication of Integers**—pp. 96–103
- Understand: Using properties of rational numbers to multiply two integers
 - Understand: Using rules to multiply two integers
-
- Lesson 12 Understand Division of Integers**—pp. 104–111
- Understand: Using a rule to divide integers
 - Understand: Dividing two integers when the quotient is not an integer
-
- Lesson 13 Multiply and Divide Rational Numbers**—pp. 112–119
- Understand: Multiplying and dividing rational numbers that are not integers
-
- Lesson 14 Convert Rational Numbers to Decimal Form**—pp. 120–127
- Understand: Converting rational numbers to terminating decimals
 - Understand: Converting rational numbers to repeating decimals
-
- Lesson 15 Apply Rational-Number Operations**—pp. 128–135
- Understand: Evaluate mathematical expressions using the order of operations
-
- Foundational Skills Handbook**—p. 370
- D. Understand: Renaming the dividend to divide a fraction by a fraction
-
- Foundational Skills Handbook**—p. 371
- E. Understand: Operations with multi-digit decimals
-
- Foundational Skills Handbook**—p. 371
- F. Understand: Positive and negative numbers, opposites, and absolute value

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

(3) Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to:

(A) add, subtract, multiply, and divide rational numbers fluently; and

(B) apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers.

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

Lesson 10 Add and Subtract Rational Numbers—pp. 88–95

- Understand: Adding rational numbers that are not integers
- Understand: Subtracting rational numbers that are not integers

Lesson 11 Understand Multiplication of Integers—pp. 96–103

- Understand: Using properties of rational numbers to multiply two integers
- Understand: Using rules to multiply two integers

Lesson 12 Understand Division of Integers—pp. 104–111

- Understand: Using a rule to divide integers
- Understand: Dividing two integers when the quotient is not an integer

Lesson 13 Multiply and Divide Rational Numbers—pp. 112–119

- Understand: Multiplying and dividing rational numbers that are not integers

Foundational Skills Handbook—p. 371

- E. Understand: Operations with multi-digit decimals

Lesson 10 Add and Subtract Rational Numbers—pp. 88–95

- Understand: Adding rational numbers that are not integers
- Understand: Subtracting rational numbers that are not integers

Lesson 11 Understand Multiplication of Integers—pp. 96–103

- Understand: Using properties of rational numbers to multiply two integers
- Understand: Using rules to multiply two integers

Lesson 12 Understand Division of Integers—pp. 104–111

- Understand: Using a rule to divide integers
- Understand: Dividing two integers when the quotient is not an integer

Lesson 13 Multiply and Divide Rational Numbers—pp. 112–119

- Understand: Multiplying and dividing rational numbers that are not integers

Foundational Skills Handbook—p. 371

- E. Understand: Operations with multi-digit decimals

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

(4) Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to:

(A) represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$;

(B) calculate unit rates from rates in mathematical and real-world problems;

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

Lesson 1 Compute Unit Rates—pp. 10–17

- Understand: Unit rates for ratios of fractional quantities with like units
- Understand: Unit rates with money

Lesson 2 Identify Proportional Relationships—pp. 18–25

- Understand: Using a table to test for a proportional relationship
- Understand: Using a graph to test for a proportional relationship

Lesson 3 Identify the Constant of Proportionality—pp. 26–33

- Understand: Identifying the unit rate from a graph or from an equation
- Understand: Identifying a unit rate from a double number line diagram

Lesson 4 Represent Proportional Relationships with Equations ($d = kt$: p.35)—pp. 34–41

- Understand: Representing a proportional relationship with an equation

Lesson 5 Interpret Graphs of Proportional Relationships—pp. 42–49

- Understand: The meaning of the points on the graph of a proportional relationship (two variables)

Lesson 6 Problem Solving: Multi-step Ratio Problems—pp. 50–57

- Understand: Using equations to solve multi-step ratio problems

Lesson 7 Problem Solving: Multi-step Percent Problems—pp. 58–65

- Understand: Solving percent decrease problems
- Understand: Solving percent increase problems
- Understand: Solving percent error problems

Foundational Skills Handbook—p. 369

- A. Understand: What a unit rate is
- Understand: Using ratio tables to compare ratios

Lesson 1 Compute Unit Rates—pp. 10–17

- Understand: Unit rates for ratios of fractional quantities with like units
- Understand: Unit rates with money

(C) determine the constant of proportionality ($k = y/x$) within mathematical and real-world problems;

(D) solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems; and

- Lesson 2 Identify Proportional Relationships**—pp. 18–25
- Understand: Using a table to test for a proportional relationship
 - Understand: Using a graph to test for a proportional relationship

- Lesson 3 Identify the Constant of Proportionality**—pp. 26–33
- Understand: Identifying the unit rate from a graph or from an equation
 - Understand: Identifying a unit rate from a double number line diagram

- Lesson 4 Represent Proportional Relationships with Equations**—pp. 34–41
- Understand: Representing a proportional relationship with an equation

- Lesson 5 Interpret Graphs of Proportional Relationships**—pp. 42–49
- Understand: The meaning of the points on the graph of a proportional relationship (two variables)

- Lesson 6 Problem Solving: Multi-step Ratio Problems**—pp. 50–57
- Understand: Using equations to solve multi-step ratio problems

- Lesson 6 Problem Solving: Multi-step Ratio Problems**—pp. 50–57
- Understand: Using equations to solve multi-step ratio problems

Foundational Skills Handbook—p. 369

- A. Understand: What a unit rate is

- Lesson 3 Identify the Constant of Proportionality**—pp. 26–33
- Understand: Identifying the unit rate from a graph or from an equation
 - Understand: Identifying a unit rate from a double number line diagram

- Lesson 4 Represent Proportional Relationships with Equations**—pp. 34–41
- Understand: Representing a proportional relationship with an equation

- Lesson 1 Compute Unit Rates**—pp. 10–17
- Understand: Unit rates for ratios of fractional quantities with like units
 - Understand: Unit rates with money

- Lesson 2 Identify Proportional Relationships**—pp. 18–25
- Understand: Using a table to test for a proportional relationship
 - Understand: Using a graph to test for a proportional relationship

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

(E) convert between measurement systems, including the use of proportions and the use of unit rates.

(5) Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to:

(A) generalize the critical attributes of similarity, including ratios within and between similar shapes;

(B) describe π as the ratio of the circumference of a circle to its diameter; and

(C) solve mathematical and real-world problems involving similar shape and scale drawings.

Lesson 3 Identify the Constant of Proportionality—pp. 26–33

- Understand: Identifying the unit rate from a graph or from an equation
- Understand: Identifying a unit rate from a double number line diagram

Lesson 4 Represent Proportional Relationships with Equations—pp. 34–41

- Understand: Representing a proportional relationship with an equation

Lesson 6 Problem Solving: Multi-step Ratio Problems—pp. 50–57

- Understand: Using equations to solve multi-step ratio problems

Lesson 7 Problem Solving: Multi-step Percent Problems—pp. 58–65

- Understand: Solving percent decrease problems
- Understand: Solving percent increase problems
- Understand: Solving percent error problems

Related content—
Measurement Conversions—p. 379

Related content—
Lesson 23 Use Scale Drawings to Solve Problems—pp. 204–211

- Understand: Solving problems about scale drawings
- Understand: Reproducing a scale drawing at a different scale

Lesson 27 Use Formulas for Area and Circumference of Circles—pp. 236–243

- Understand: Using the formula for the circumference of a circle
- Understand: Using the formula for the area of a circle

Lesson 23 Use Scale Drawings to Solve Problems—pp. 204–211

- Understand: Solving problems about scale drawings
- Understand: Reproducing a scale drawing at a different scale

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

(6) Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to:

(A) represent sample spaces for simple and compound events using lists and tree diagrams;

(B) select and use different simulations to represent simple and compound events with and without technology;

(C) make predictions and determine solutions using experimental data for simple and compound events;

(D) make predictions and determine solutions using theoretical probability for simple and compound events;

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

Lesson 34 Describe the Probability of a Chance Event—pp. 298–305

- Understand: The probability of an event
- Understand: Find the probability of a certain event
- Understand: Find the probability of an impossible event

Lesson 35 Relate Relative Frequency and Probability—pp. 306–313

- Understand: Finding approximate probability using relative frequency
- Understand: Using a known probability to predict the frequency of a given outcome

Lesson 35 Relate Relative Frequency and Probability—pp. 306–313

- Understand: Finding approximate probability using relative frequency
- Understand: Using a known probability to predict the frequency of a given outcome

Lesson 36 Finding Theoretical Probability—pp. 314–321

- Understand: Calculate theoretical probability
- Understand: Random drawings
- Understand: Probability and a number cube

Lesson 35 Relate Relative Frequency and Probability—pp. 306–313

- Understand: Finding approximate probability using relative frequency
- Understand: Using a known probability to predict the frequency of a given outcome

Lesson 36 Finding Theoretical Probability—pp. 314–321

- Understand: Calculate theoretical probability
- Understand: Random drawings
- Understand: Probability and a number cube

Lesson 34 Describe the Probability of a Chance Event—pp. 298–305

- Understand: The probability of an event
- Understand: Find the probability of a certain event
- Understand: Find the probability of an impossible event

Lesson 36 Finding Theoretical Probability—pp. 314–321

- Understand: Calculate theoretical probability
- Understand: Random drawings
- Understand: Probability and a number cube

(E) find the probabilities of a simple event and its complement and describe the relationship between the two;

(F) use data from a random sample to make inferences about a population;

Lesson 38 Find Probabilities of Compound Events—pp. 330–337

- Understand: Compound events and tree diagrams

Lesson 39 Represent Sample Spaces for Compound Events—pp. 338–345

- Understand: Using a table to show a sample space

Lesson 40 Simulate Compound Events—pp. 346–353

- Understand: Using a random number generator in a simulation
- Understand: Using number cubes in a simulation

Lesson 34 Describe the Probability of a Chance Event—pp. 298–305

- Understand: The probability of an event
- Understand: Find the probability of a certain event
- Understand: Find the probability of an impossible event

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- Understand: Finding approximate probability using relative frequency
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Lesson 36 Finding Theoretical Probability—pp. 314–321

- Understand: Calculate theoretical probability
- Understand: Random drawings
- Understand: Probability and a number cube

Lesson 30 Understand Sampling—pp. 266–273

- Understand: Judging if a sample is representative of a population
- Understand: Choosing a sampling method

Lesson 31 Use Sampling to Draw Inferences—pp. 274–281

- Understand: Drawing inferences about a population from a random sample
- Understand: Using multiple samples to make inferences about a population

Lesson 33 Use Sample Statistics to Compare Populations—pp. 290–297

- Understand: Selecting a measure of center to compare random samples
- Understand: Using random samples to compare populations

Lesson 36 Finding Theoretical Probability—pp. 314–321

- Understand: Calculate theoretical probability
- Understand: Random drawings
- Understand: Probability and a number cube

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SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

(G) solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents;

(H) solve problems using qualitative and quantitative predictions and comparisons from simple experiments; and

(I) determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces.

(7) Expressions, equations, and relationships. The student applies mathematical process standards to represent linear relationships using multiple representations. The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$.

Lesson 40 Simulate Compound Events—pp. 346–353

- Understand: Using a random number generator in a simulation
- Understand: Using number cubes in a simulation

Lesson 32 Use Visual Overlap to Compare Distributions—pp. 282–289

- Understand: Comparing displays of data sets visually
- Understand: Comparing data sets using their measures of center and variability
- Understand: Expressing a difference in means as a multiple of MAD

Lesson 33 Use Sample Statistics to Compare Populations—pp. 290–297

- Understand: Selecting a measure of center to compare random samples
- Understand: Using random samples to compare populations

Lesson 31 Use Sampling to Draw Inferences—pp. 274–281

- Understand: Drawing inferences about a population from a random sample
- Understand: Using multiple samples to make inferences about a population

Lesson 35 Relate Relative Frequency and Probability—pp. 306–313

- Understand: Finding approximate probability using relative frequency
- Understand: Using a known probability to predict the frequency of a given outcome

Lesson 37 Finding Experimental Probability—pp. 322–329

- Understand: Experimental probability
- Understand: Finding experimental probability

Lesson 36 Finding Theoretical Probability—pp. 314–321

- Understand: Calculate theoretical probability
- Understand: Random drawings
- Understand: Probability and a number cube

Lesson 37 Finding Experimental Probability—pp. 322–329

- Understand: Experimental probability
- Understand: Finding experimental probability

Lesson 2 Identify Proportional Relationships (linear relationships)—pp. 18–25

- Understand: Using a table to test for a proportional relationship
- Understand: Using a graph to test for a proportional relationship

(8) Expressions, equations, and relationships. The student applies mathematical process standards to develop geometric relationships with volume. The student is expected to:

(A) model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights and connect that relationship to the formulas;

(B) explain verbally and symbolically the relationship between the volume of a triangular prism and a triangular pyramid having both congruent bases and heights and connect that relationship to the formulas; and

(C) use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas.

Lesson 3 Identify the Constant of Proportionality—pp. 26–33

- Understand: Identifying the unit rate from a graph or from an equation
- Understand: Identifying a unit rate from a double number line diagram

Lesson 4 Represent Proportional Relationships with Equations—pp. 34–41

- Understand: Representing a proportional relationship with an equation

Lesson 5 Interpret Graphs of Proportional Relationships—pp. 42–49

- Understand: The meaning of the points on the graph of a proportional relationship (two variables)

Related content—
Lesson 29 Problem Solving: Area, Volume, and Surface Area—pp. 252–259

- Understand: Finding area of a two-dimensional shape
- Understand: Finding the surface area of a three-dimensional object
- Understand: Finding the volume of a three-dimensional object

Foundational Skills Handbook—p. 374

- K. Understand: Finding volumes of rectangular prisms

Related content—
Lesson 29 Problem Solving: Area, Volume, and Surface Area—pp. 252–259

- Understand: Finding area of a two-dimensional shape
- Understand: Finding the surface area of a three-dimensional object
- Understand: Finding the volume of a three-dimensional object

Foundational Skills Handbook—p. 374

- K. Understand: Finding volumes of rectangular prisms

Lesson 27 Use Formulas for Area and Circumference of Circles—pp. 236–243

- Understand: Using the formula for the circumference of a circle
- Understand: Using the formula for the area of a circle

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

(9) Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to:

(A) solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids;

(B) determine the circumference and area of circles;

(C) determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles; and

(D) solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net.

(10) Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to:

(A) write one-variable, two-step equations and inequalities to represent constraints or conditions within problems;

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Lesson 29 Problem Solving: Area, Volume, and Surface Area—pp. 252–259

- Understand: Finding area of a two-dimensional shape
- Understand: Finding the surface area of a three-dimensional object
- Understand: Finding the volume of a three-dimensional object

Foundational Skills Handbook—p. 374

- K. Understand: Finding volumes of rectangular prisms

Lesson 27 Use Formulas for Area and Circumference of Circles—pp. 236–243

- Understand: Using the formula for the circumference of a circle
- Understand: Using the formula for the area of a circle

Lesson 29 Problem Solving: Area, Volume, and Surface Area—pp. 252–259

- Understand: Finding area of a two-dimensional shape
- Understand: Finding the surface area of a three-dimensional object
- Understand: Finding the volume of a three-dimensional object

Foundational Skills Handbook—p. 373

- J. Understand: Finding areas of parallelograms and triangles

Lesson 29 Problem Solving: Area, Volume, and Surface Area*—pp. 252–259

- Understand: Finding area of a two-dimensional shape
- Understand: Finding the surface area of a three-dimensional object
- Understand: Finding the volume of a three-dimensional object

*No use of nets at this level.

Lesson 19 Solve Linear Equations—pp. 166–173

- Understand: Solving equations of the form $x + p = q$
- Understand: Solving equations of the form $px = q$

(B) represent solutions for one-variable, two-step equations and inequalities on number lines; and

(C) write a corresponding real-world problem given a one-variable, two-step equation or inequality.

- Lesson 20 Problem Solving: Linear Equations**—pp. 174–181
- Understand: Using equations to solve real-world problems
 - Understand: Using equations to solve mathematical problems

- Lesson 21 Solve Linear Inequalities**—pp. 182–189
- Understand: Exploring properties of inequalities
 - Understand: Solving inequalities of the form $px + q > r$

- Lesson 22 Problem Solving: Linear Inequalities**—pp. 190–197
- Understand: Using an inequality to solve a real-world problem
 - Understand: Solving a real-world problem in which the solution requires reversing the inequality symbol

- Foundational Skills Handbook**—p. 373
- I. Understand: Solving equations of the forms $x + p = q$ and $px = q$

- Lesson 21 Solve Linear Inequalities**—pp. 182–189
- Understand: Exploring properties of inequalities
 - Understand: Solving inequalities of the form $px + q > r$

- Lesson 22 Problem Solving: Linear Inequalities**—pp. 190–197
- Understand: Using an inequality to solve a real-world problem
 - Understand: Solving a real-world problem in which the solution requires reversing the inequality symbol

- Lesson 19 Solve Linear Equations**—pp. 166–173
- Understand: Solving equations of the form $x + p = q$
 - Understand: Solving equations of the form $px = q$

- Lesson 20 Problem Solving: Linear Equations**—pp. 174–181
- Understand: Using equations to solve real-world problems
 - Understand: Using equations to solve mathematical problems

- Lesson 21 Solve Linear Inequalities**—pp. 182–189
- Understand: Exploring properties of inequalities
 - Understand: Solving inequalities of the form $px + q > r$

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7

(11) Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:

(A) model and solve one-variable, two-step equations and inequalities;

(B) determine if the given value(s) make(s) one-variable, two-step equations and inequalities true; and

Lesson 22 Problem Solving: Linear Inequalities—pp. 190–197

- Understand: Using an inequality to solve a real-world problem
- Understand: Solving a real-world problem in which the solution requires reversing the inequality symbol

Lesson 19 Solve Linear Equations—pp. 166–173

- Understand: Solving equations of the form $x + p = q$
- Understand: Solving equations of the form $px = q$

Lesson 20 Problem Solving: Linear Equations—pp. 174–181

- Understand: Using equations to solve real-world problems
- Understand: Using equations to solve mathematical problems

Lesson 21 Solve Linear Inequalities—pp. 182–189

- Understand: Exploring properties of inequalities
- Understand: Solving inequalities of the form $px + q > r$

Lesson 22 Problem Solving: Linear Inequalities—pp. 190–197

- Understand: Using an inequality to solve a real-world problem
- Understand: Solving a real-world problem in which the solution requires reversing the inequality symbol

Foundational Skills Handbook—p. 373

- I. Understand: Solving equations of the forms $x + p = q$ and $px = q$

Lesson 19 Solve Linear Equations—pp. 166–173

- Understand: Solving equations of the form $x + p = q$
- Understand: Solving equations of the form $px = q$

Lesson 20 Problem Solving: Linear Equations—pp. 174–181

- Understand: Using equations to solve real-world problems
- Understand: Using equations to solve mathematical problems

(C) write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.

(12) Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to:

(A) compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads;

Lesson 21 Solve Linear Inequalities—pp. 182–189

- Understand: Exploring properties of inequalities
- Understand: Solving inequalities of the form $px + q > r$

Lesson 22 Problem Solving: Linear Inequalities—pp. 190–197

- Understand: Using an inequality to solve a real-world problem
- Understand: Solving a real-world problem in which the solution requires reversing the inequality symbol

Lesson 27 Use Formulas for Area and Circumference of Circles—pp. 236–243

- Understand: Using the formula for the circumference of a circle
- Understand: Using the formula for the area of a circle

Lesson 28 Use Equations to Find Unknown Angle Measures—pp. 244–251

- Understand: Identifying pairs of adjacent angles
- Understand: Identifying pairs of vertical angles
- Understand: Using facts about complementary angles to write equations to find the unknown angle measure in a figure
- Understand: Using facts about supplementary angles to write equations to find the unknown angle measure in a figure

Lesson 29 Problem Solving: Area, Volume, and Surface Area—pp. 252–259

- Understand: Finding area of a two-dimensional shape
- Understand: Finding the surface area of a three-dimensional object
- Understand: Finding the volume of a three-dimensional object

Foundational Skills Handbook—pp. 372–373

- H. Understand: Using expressions to write an equation
- I. Understand: Solving equations of the forms $x + p = q$ and $px = q$

Lesson 32 Use Visual Overlap to Compare Distributions—pp. 282–289

- Understand: Comparing displays of data sets visually

(B) use data from a random sample to make inferences about a population; and

(C) compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations.

- Understand: Comparing data sets using their measures of center and variability
- Understand: Expressing a difference in means as a multiple of MAD

Lesson 33 Use Sample Statistics to Compare Populations—pp. 290–297

- Understand: Selecting a measure of center to compare random samples
- Understand: Using random samples to compare populations

Foundational Skills Handbook (dot plot)—p. 374

- L. Understand: Statistical questions and describing data

Lesson 30 Understand Sampling—pp. 266–273

- Understand: Judging if a sample is representative of a population
- Understand: Choosing a sampling method

Lesson 31 Use Sampling to Draw Inferences—pp. 274–281

- Understand: Drawing Inferences about a population from a random sample
- Understand: Using multiple samples to make inferences about a population

Lesson 30 Understand Sampling—pp. 266–273

- Understand: Judging if a sample is representative of a population
- Understand: Choosing a sampling method

Lesson 31 Use Sampling to Draw Inferences—pp. 274–281

- Understand: Drawing Inferences about a population from a random sample
- Understand: Using multiple samples to make inferences about a population

Lesson 35 Relate Relative Frequency and Probability—pp. 306–313

- Understand: Finding approximate probability using relative frequency
- Understand: Using a known probability to predict the frequency of a given outcome

Lesson 37 Use a Chance Process to Develop a Probability Model—pp. 322–329

- Understand: Experimental probability
- Understand: Finding experimental probability

GRADE 7 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS	SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 7
(13) Personal financial literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor. The student is expected to:	
(A) calculate the sales tax for a given purchase and calculate income tax for earned wages;	<p>Lesson 7 Problem Solving: Multi-step Percent Problems (sales tax: pp. 59, 62, 63)—pp. 58–65</p> <ul style="list-style-type: none"> • Understand: Solving percent decrease problems • Understand: Solving percent increase problems • Understand: Solving percent error problems
(B) identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and variable expenses, and calculate what percentage each category comprises of the total budget;	<p>Lesson 16 Combine Like Terms to Simplify Linear Expressions (sales tax: pp. 145, 149)—pp. 142–149</p> <ul style="list-style-type: none"> • Understand: Combining like terms to simplify expressions (associative property)
(C) create and organize a financial assets and liabilities record and construct a net worth statement;	<p>Lesson 18 Problem Solving: Multi-step Problems with Rational Numbers (sales tax: p. 160)—pp. 158–165</p> <ul style="list-style-type: none"> • Understand: Estimating with rational numbers
(D) use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in the student's city or another large city nearby;	<p>Lesson 9 Understand Subtraction of Integers (savings account: p. 79)—pp. 80–87</p> <ul style="list-style-type: none"> • Understand: Subtracting integers
(E) calculate and compare simple interest and compound interest earnings; and	n/a
(F) analyze and compare monetary incentives, including sales, rebates, and coupons.	n/a
(E) calculate and compare simple interest and compound interest earnings; and	n/a
(F) analyze and compare monetary incentives, including sales, rebates, and coupons.	n/a