MCAP EOC Tutorials for Maryland are designed specifically for the Maryland College and Career Ready Standards to prepare students for the Maryland Comprehensive Assessment Program (MCAP). EOC Categories are at the heart of MCAP EOC Tutorial structure – bringing category-based learning to the student experience, and category-based performance and progress tracking to the teacher experience.

Math Tutorials offer targeted instruction, practice and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. They automatically identify and address learning gaps down to elementary-level content, using adaptive remediation to bring students to grade-level no matter where they start. Students engage with the content in an interactive, feedback-rich environment as they progress through standards-aligned modules. By constantly honing the ability to apply their knowledge in abstract and real world scenarios, students build the depth of knowledge and higher order skills required to demonstrate their mastery when put to the test.

In each module, the Learn It and Try It make complex ideas accessible to students through focused content, modeled logic and process, multi-modal representations, and personalized feedback as students reason through increasingly challenging problems. The Review It offers a high impact summary of key concepts and relates those concepts to students' lives. The Test It assesses students' mastery of the module's concepts, providing granular performance data to students and teachers after each attempt. To help students focus on the content most relevant to them, unit-level pretests and posttests can quickly identify where students are strong and where they're still learning.

Test-Taking Strategies for EOC Tutorials allow students to practice and apply learning approaches that will hone their test-taking skills and focus them for success on the day of their EOC test.

Unit 1: Rate, Ratio, and Proportion

- **UNIT RATES**
  - 7.RP.A.1: Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction (1/2)/(1/4) miles per hour, equivalently 2 miles per hour.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw

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conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.

- 7.R.1b.a: Construct chains of reasoning that will justify or refute propositions or conjectures.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.R.1a.a: Base explanations and reasoning on a coordinate plane diagram.
- 7.RP.A.2a: Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.

- **IDENTIFYING PROPORTIONAL RELATIONSHIPS**
  - 7.RP.A.2a: Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
  - 7.R.1b.a: Construct chains of reasoning that will justify or refute propositions or conjectures.
  - 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
  - 7.R.1a.a: Base explanations and reasoning on a coordinate plane diagram.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.

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- 7.RP.A.3-2: Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
- 7.RP.A.3-1: Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

Unit 2: Using Proportional Relationships

- **ANALYZING PROPORTIONAL RELATIONSHIPS**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
  - 7.RP.A.2b: Recognize and represent proportional relationships between quantities. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.RP.A.1: Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction (1/2)/(1/4) miles per hour, equivalently 2 miles per hour.
  - 7.R.1b.a: Construct chains of reasoning that will justify or refute propositions or conjectures.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
  - 7.R.1a.a: Base explanations and reasoning on a coordinate plane diagram.
- **REPRESENTING PROPORTIONAL RELATIONSHIPS**
  - 7.RP.A.2a: Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or

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graphing on a coordinate plane and observing whether the graph is a straight line through the origin.

- 7.R.1b.a: Construct chains of reasoning that will justify or refute propositions or conjectures.
- 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
- 7.R.1a.a: Base explanations and reasoning on a coordinate plane diagram.
- 7.RP.A.2d: Recognize and represent proportional relationships between quantities. d. Explain what a point (,) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0,0) and (1,) where is the unit rate.
- 7.M.1b: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. b. Given a real-world situation, formulate a mathematical representation of the problem.
- 7.RP.A.2c: Recognize and represent proportional relationships between quantities. c. Represent proportional relationships by equations. For example, if total cost is proportional to the number of items purchased at a constant price , the relationship between the total cost and the number of items can be expressed as = .
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.RP.A.2c: Recognize and represent proportional relationships between quantities. c. Represent proportional relationships by equations. For example, if total cost is proportional to the number of items purchased at a constant price , the relationship between the total cost and the number of items can be expressed as = .
- 7.RP.A.3-2: Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

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- 7.RP.A.3-1: Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
- 7.RP.A.2d: Recognize and represent proportional relationships between quantities. d. Explain what a point (,) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0,0) and (1,) where is the unit rate.

- **USING PROPORTIONS TO SOLVE PROBLEMS**
  - 7.RP.A.3-2: Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
  - 7.RP.A.3-1: Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
  - 7.R.1c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
  - 7.R.1c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
  - 7.R.1a.a: Base explanations and reasoning on a coordinate plane diagram.

Unit 3: Addition and Subtraction of Rational Numbers

- **ADDING RATIONAL NUMBERS**
  - 7.R.2c.a: Base explanations and reasoning on a number line diagram.
  - 7.NS.A.1b-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-1. Understand + as the number located a distance from , in the positive or negative

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direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

- 7.NS.A.1b-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-2. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- 7.NS.A.1a: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.
- 7.R.2a.a: Base explanations and reasoning on the properties of operations.
- 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
- 7.NS.A.1b-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-1. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- 7.NS.A.1b-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-2. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.

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- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

- **SUBTRACTING RATIONAL NUMBERS**
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.NS.A.1c-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-1. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
  - 7.NS.A.1c-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-2. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
  - 7.NS.A.1a: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.
  - 7.R.2c.a: Base explanations and reasoning on a number line diagram.
  - 7.NS.A.1b-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-1. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

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- 7.NS.A.1b-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-2. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- 7.NS.A.1c-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-1. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- 7.NS.A.1c-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-2. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
- 7.NS.A.1c-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-1. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- 7.NS.A.1c-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-2. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.

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- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

- **USING PROPERTIES TO ADD AND SUBTRACT RATIONAL NUMBERS**
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.
  - 7.NS.A.1d: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. d. Apply properties of operations as strategies to add and subtract rational numbers.
  - 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.R.2c.a: Base explanations and reasoning on a number line diagram.
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
  - 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional

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1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

Unit 4: Multiplication and Division of Rational Numbers

- **MULTIPLYING RATIONAL NUMBERS**
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.NS.A.2a-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-1. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.2a-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-2. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.2a-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-1. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.2a-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-2. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

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- 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
- 7.R.2c.a: Base explanations and reasoning on a number line diagram.
- 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
- 7.M.1b: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. b. Given a real-world situation, formulate a mathematical representation of the problem.
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

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- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

- **DIVIDING RATIONAL NUMBERS**
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.NS.A.2b-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-1. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
  - 7.NS.A.2b-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-2. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
  - 7.NS.A.2b-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-1. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
  - 7.NS.A.2b-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-2. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.NS.A.2b-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-1. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
  - 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
  - 7.NS.A.2b-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-2. Understand that integers can be divided, provided that

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the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.

- 7.R.2c.a: Base explanations and reasoning on a number line diagram.
- 7.NS.A.2b-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-1. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
- 7.NS.A.2b-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b-2. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If and are integers, then (/) = ()/ = /(). Interpret quotients of rational numbers by describing real-world contexts.
- 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
- 7.M.1b: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. b. Given a real-world situation, formulate a mathematical representation of the problem.
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4

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inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

- **USING PROPERTIES TO MULTIPLY AND DIVIDE RATIONAL NUMBERS**
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.
  - 7.NS.A.2c: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. c. Apply properties of operations as strategies to multiply and divide rational numbers.
  - 7.NS.A.2a-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-1. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.2a-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-2. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.R.2c.a: Base explanations and reasoning on a number line diagram.
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw

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conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.

- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

Unit 5: Working with Rational Numbers

- **EXPRESSING RATIONAL NUMBERS IN DECIMAL FORM**
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.NS.A.2d: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.R.2c.a: Base explanations and reasoning on a number line diagram.
  - 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.

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- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.2d.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.2d.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.

- **USING OPERATIONS ON RATIONAL NUMBERS TO SOLVE PROBLEMS**
  - 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
  - 7.NS.A.1b-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-1. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
  - 7.NS.A.1b-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-2. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
  - 7.NS.A.2a-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-1. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.2a-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-2. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 7.NS.A.1c-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-1. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
  - 7.NS.A.1c-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-2. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show

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that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

- 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- 7.R.2a.a: Base explanations and reasoning on the properties of operations.
- 7.NS.A.1b-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-1. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- 7.NS.A.1b-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b-2. Understand + as the number located a distance from , in the positive or negative direction depending on whether is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
- 7.NS.A.2a-1: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-1. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
- 7.NS.A.2a-2: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a-2. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (1)(1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

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- 7.NS.A.1c-1: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-1. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- 7.NS.A.1c-2: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c-2. Understand subtraction of rational numbers as adding the additive inverse, = + (). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.R.2c.a: Base explanations and reasoning on a number line diagram.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.

- **SOLVING MULTI-STEP PROBLEMS WITH RATIONAL NUMBERS**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.R.2a.a: Base explanations and reasoning on the properties of operations.

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- 7.R.2b.a: Base explanations and reasoning on the relationship between addition and subtraction or the relationship between multiplication and division.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.NS.A.1d: Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. d. Apply properties of operations as strategies to add and subtract rational numbers.
- 7.R.2e.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.R.3c.a: Present solutions to multi-step problems in the form of valid chains of reasoning, adhering to precision.
- 7.R.2e.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.R.3c.b: Identify or describe errors in solutions to multi-step problems and present corrected solutions.
- 7.NS.A.2c: Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. c. Apply properties of operations as strategies to multiply and divide rational numbers.
- 7.NS.A.3: Solve real-world and mathematical problems involving the four operations with rational numbers.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4

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inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

- 7.R.2c.a: Base explanations and reasoning on a number line diagram.
- 7.EE.A.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, + 0.05 = 1.05 means that increase by 5 is the same as multiply by 1.05.
- 7.EE.B.3: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making 25 an hour gets a 10 raise, she will make an additional 1/10 of her salary an hour, or 2.50, for a new salary of 27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
- 7.EE.A.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, + 0.05 = 1.05 means that increase by 5 is the same as multiply by 1.05.

Unit 6: Algebraic Expressions and Equations

- **SIMPLIFYING AND REWRITING ALGEBRAIC EXPRESSIONS**
  - 7.EE.A.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
  - 7.R.3a.a: Base explanations and reasoning on the properties of operations.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.EE.A.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, + 0.05 = 1.05 means that increase by 5 is the same as multiply by 1.05.
  - 7.EE.A.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, + 0.05 = 1.05 means that increase by 5 is the same as multiply by 1.05.
- **SOLVING TWO-STEP EQUATIONS**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw

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conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.

- 7.EE.B.4a-2: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-2. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.
- 7.EE.B.4a-1: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-1. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width
- 7.EE.B.4a-2: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-2. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.
- 7.EE.B.4a-1: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-1. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.EE.B.4a-2: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-2. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.
- 7.EE.B.4a-1: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-1. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an

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arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width

- 7.R.3b.a: Given an equation, present the solution steps as a logical argument that concludes with a set of solutions, if any.
- 7.EE.B.4a-2: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-2. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.
- 7.EE.B.4a-1: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a-1. Solve word problems leading to equations of the form + = and (+) = , where , , and are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width

Unit 7: Solving Linear Inequalities

- **SOLVING LINEAR INEQUALITIES**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
  - 7.M.1b: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. b. Given a real-world situation, formulate a mathematical representation of the problem.
  - 7.EE.B.4b: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. b. Solve word problems leading to inequalities of the form + or + , where , and are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid 50 per week plus 3 per sale. This week you want your pay to be at least 100. Write an inequality for the number of sales you need to make, and describe the solutions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.

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- 7.EE.B.4b: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. b. Solve word problems leading to inequalities of the form + or + , where , and are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid 50 per week plus 3 per sale. This week you want your pay to be at least 100. Write an inequality for the number of sales you need to make, and describe the solutions.
- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.EE.B.4b: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. b. Solve word problems leading to inequalities of the form + or + , where , and are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid 50 per week plus 3 per sale. This week you want your pay to be at least 100. Write an inequality for the number of sales you need to make, and describe the solutions.
- 7.EE.B.4b: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. b. Solve word problems leading to inequalities of the form + or + , where , and are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid 50 per week plus 3 per sale. This week you want your pay to be at least 100. Write an inequality for the number of sales you need to make, and describe the solutions.

Unit 8: Drawing, Constructing, and Exploring Geometric Figures

- **SCALE DRAWINGS**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.G.A.1: Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- **GEOMETRIC DRAWINGS**

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- 7.G.A.2: Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.

- **CROSS-SECTIONS OF GEOMETRIC SOLIDS**
  - 7.G.A.3: Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.

Unit 9: Geometry in Two and Three Dimensions

- **CIRCLES**
  - 7.G.B.4-2: Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
  - 7.G.B.4-1: Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.

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- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.

- **ANGLE RELATIONSHIPS**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.G.B.5: Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
- **AREA, VOLUME, AND SURFACE AREA**
  - 7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.

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Unit 10: Statistics and Sampling

- **POPULATIONS AND SAMPLES**
  - 7.SP.A.1: Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.SP.A.2: Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.SP.B.4: Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- **COMPARING DATA SETS VISUALLY**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.SP.B.4: Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the

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words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

- 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
- 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
- 7.SP.B.3: Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.

- **USING STATISTICAL MEASURES TO COMPARE DATA SETS**
  - 7.SP.B.4: Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.
  - 7.SP.B.3: Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw

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conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.

Unit 11: Introduction to Probability

- **PROBABILITY**
  - 7.SP.C.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
  - 7.SP.C.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- **CALCULATING PROBABILITY**
  - 7.SP.C.7a: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
  - 7.SP.C.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.

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- 7.SP.C.7b: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies

Unit 12: Probability

- **PROBABILITY OF COMPOUND EVENTS**
  - 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
  - 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
  - 7.SP.C.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
  - 7.M.1d: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. d. Given a real-world situation, interpret what a solution means within the context of the situation.
  - 7.M.1e: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. e. Given a real-world situation, evaluate and/or validate a partial or complete solution.
  - 7.SP.C.8a: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
  - 7.SP.C.8b: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., rolling double sixes), identify the outcomes in the sample space which compose the event.
- **SIMULATIONS**
  - 7.SP.C.8c: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40 of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood

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- 7.M.1: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions.
- 7.M.1c: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. c. Given a real-world situation, use mathematical models to compute and draw conclusions.
- 7.M.1a: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. a. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information.
- 7.M.1b: Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. b. Given a real-world situation, formulate a mathematical representation of the problem.
- 7.SP.C.8c: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40 of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood
- 7.SP.C.8c: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40 of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood

Unit 13: Test-Taking Strategies

- **STUDY HABITS**
- **BEING PREPARED AND GETTING STARTED**
- **WORDING IN TEST QUESTIONS**
- **WORDING IN ANSWER CHOICES**
- **QUESTIONS WITH PASSAGES AND VISUAL DATA**
- **ESSAY AND SHORT ANSWER QUESTIONS**
- **WORD PROBLEMS**

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