

Essential Elements: Grade 7

Ratios and Proportional Relationships 7.RP

A Analyze proportional relationships and use them to solve real world and mathematical problems. (M) M.7.RP.A

- 1 Use a ratio to model or describe a relationship. M.EE.7.RP.1
 - 2 Use a ratio to model or describe a relationship. M.EE.7.RP.2
 - 3 Use a ratio to model or describe a relationship. M.EE.7.RP.3
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The Number System 7.NS

A Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. M.7.NS.A

- 1 Add fractions with like denominators (halves, thirds, fourths, and tenths) with sums less than or equal to one. M.EE.7.NS.1
 - 2 Apply and extend previous understandings of multiplication, division, and fractions. M.EE.7.NS.2
 - a Multiply within 100 using strategies such as the properties of operations [e.g., knowing that 7×6 can be thought of as 7 groups of 6 so one could think 5 groups of 6 is 30 and 2 more groups of 6 is 12 and $30 + 12 = 42$ (informal use of the distributive property)]. M.EE.7.NS.2.A
 - b Solve division problems within 100, including divisors of 1-5 and 10, without remainders. M.EE.7.NS.2.B
 - c Express a fraction with a denominator of 10 as a decimal. M.EE.7.NS.2.C
 - d Express a fraction with a denominator of 10 as a decimal. M.EE.7.NS.2.D
 - 3 Using real world examples, compare quantities represented as decimals to tenths. M.EE.7.NS.3
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The Expressions and Equations 7.EE

A Use properties of operations to generate equivalent expressions. M.7.EE.A

- 1 Use the properties of operations as strategies to demonstrate that expressions are equivalent. M.EE.7.EE.1
- 2 Identify an arithmetic sequence of whole numbers with a whole number common difference. M.EE.7.EE.2

B Solve real-life and mathematical problems using numerical and algebraic expressions and equations. (M) M.7.EE.B

- 3 Not applicable.
 - 4 Use the concept of equality to solve one-step addition and subtraction equations with models. M.EE.7.EE.4
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Geometry 7.G

A Draw, construct, and describe geometrical figures and describe the relationships between them. M.7.G.A

- 1 Match two similar geometric shapes that are proportional in size and have the same orientation. M.EE.7.G.1
 - 2 Recognize geometric shapes with given conditions. M.EE.7.G.2
 - 3 Match a two-dimensional shape with a three-dimensional shape that shares an attribute. M.EE.7.G.3
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B Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. (M) M.7.G.B

- 4 Determine the perimeter of a rectangle. M.EE.7.G.4
 - 5 Recognize angles that are acute, obtuse, and right. M.EE.7.G.5
 - 6 Determine the area of a rectangle using the formula for length x width and confirm the result using tiling or partitioning into unit squares. M.EE.7.G.6
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Statistics and Probability 7.SP

A Use random sampling to draw inferences about a population. (M) M.7.SP.A

- 1 Answer a data related question, given a model of the data from a student experiment or collection. M.EE.7.SP.1
 - 2 Answer a data related question, given a model of the data from a student experiment or collection. M.EE.7.SP.2
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B Draw informal comparative inferences about two populations. (M) M.7.SP.B

- 3 Compare two sets of data found within a single data display such as a picture graph, line plot, or bar graph. M.EE.7.SP.3
 - 4 Not applicable. See M.EE.SP.ID.4.
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C Investigate chance processes and develop, use, and evaluate probability models. (M) M.7.SP.C

- 5 Describe the probability of events occurring as possible or impossible. M.EE.7.SP.5
- 6 Describe the probability of events occurring as possible or impossible. M.EE.7.SP.6
- 7 Describe the probability of events occurring as possible or impossible. M.EE.7.SP.7
- 8 Not applicable.