Learning Targets

Fractions and Decimals

Lesson 1: Size of Divisor and Size of Quotient

- When dividing, I know how the size of a divisor affects the quotient.

Lesson 2: Meanings of Division

- I can create a diagram or write an equation that represents division and multiplication questions.

- I can decide whether a division question is asking "how many groups?" or "how many in each group?".

- I can explain two ways of interpreting a division expression such as $27 \div 3$.

Lesson 3: How Many Groups?

- I can use a tape diagram to represent equal-sized groups and find the number of groups.

Lesson 4: What Fraction of a Group?

- I can tell when a question is asking for the number of groups and that number is less than 1.

- I can use diagrams and multiplication and division equations to represent and answer "what fraction of a group?" questions.

Lesson 5: How Much in Each Group? (Part 1)

- I can tell when a question is asking for the amount in one group.

- I can use diagrams and multiplication and division equations to represent and answer "how much in each group?" questions.

Lesson 6: How Much in Each Group? (Part 2)

- I can find the amount in one group in different real-world situations.

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Lesson 7: Finding an Algorithm for Dividing Fractions

- I can describe and apply a rule to divide numbers by any fraction.

- I can divide a number by a non-unit fraction $\frac{a}{b}$ by reasoning with the numerator and denominator, which are whole numbers.

Lesson 8: Ratios and Rates With Fractions

- I can solve problems about ratios of fractions and decimals.

Lesson 9: Fractional Lengths

- I can use division and multiplication to solve problems involving fractional lengths.

Lesson 10: Rectangles and Triangles with Fractional Lengths

- I can use division and multiplication to solve problems involving areas of rectangles with fractional side lengths.

- I can use division and multiplication to solve problems involving areas of triangles with fractional bases and heights.

Lesson 11: Volume of Prisms

- I can solve volume problems that involve fractions.

- I know how to find the volume of a rectangular prism even when the edge lengths are not whole numbers.

Lesson 12: Solving Problems Involving Fractions

- I can use mathematical expressions to represent and solve word problems that involve fractions.

Lesson 13: Using Decimals in a Shopping Context

- I can use decimals to make estimates and calculations about money.

Lesson 14: Using Diagrams to Represent Addition and Subtraction

- I can use diagrams and vertical calculations to represent and reason about addition and subtraction of decimals.

- I can use place value to explain addition and subtraction of decimals.

- I know how to solve subtraction problems with decimals that require "unbundling" or "decomposing."

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Lesson 15: Adding and Subtracting Decimals

- I can solve problems that involve addition and subtraction of decimals.

Lesson 16: Methods for Multiplying Decimals

- I can use area diagrams to represent and reason about multiplication of decimals.

- I can use place value and fractions to reason about multiplication of decimals.

Lesson 17: Calculating Products of Decimals

- I can use area diagrams and partial products to represent and find products of decimals.

- I know how to use a product of whole numbers to find a product of decimals.

Lesson 18: Using Long Division

- I can use long division to find a quotient of two whole numbers when the quotient is a whole number.

Lesson 19: Dividing Numbers that Result in Decimals

- I can divide a decimal by a whole number.

- I can use long division to find the quotient of two whole numbers when the quotient is not a whole number.

Lesson 20: Dividing Decimals by Decimals

- I can find the quotient of two decimals.

- I know how multiplying both the dividend and the divisor by the same factor affects the quotient.

Lesson 21: Using Operations on Decimals to Solve Problems

- I can use addition, subtraction, multiplication, and division on decimals to solve problems.

Lesson 22: Fitting Boxes into Boxes

- I can use multiplication and division of fractions to reason about real-world volume problems.

Lesson 23: Making and Measuring Boxes

- I can use the four operations on decimals to find surface areas and reason about real-world problems.