

Modeling Fractions as Division

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Grade Level: 5th Grade

Subject: Math

CT Concept: Abstraction

STANDARDS

CCSS.MATH.CONTENT.5.NF.B.3

Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

LESSON OBJECTIVES / LEARNING TARGETS

Students will model fractions as division using tape diagrams.

MATERIALS / CURRICULUM

NYS Math Module 4 Topic B

LESSON DESCRIPTION

Abstraction: I want to guide the kids toward reading a fraction division problem and creating a visual for it (abstraction). We will walk through several problems together, and they will practice additional problems on their own.

Video about abstraction: www.youtube.com/watch?v=jV-7Hy-PF2Q&feature=youtu.be

Problem 1

Eight tons of gravel is equally divided between 4 dump trucks. How much gravel is in one dump truck?

Problem 2

Five tons of gravel is equally divided between 4 dump trucks. How much gravel is in one dump truck?

There are additional problems, and with each one we will identify:

- What is the whole amount that is being divided up?
 - Problem 1: 8 tons
 - Problem 2: 5 tons
- How many pieces are they being divided into?
 - Problem 1: 4 dump trucks
 - Problem 2: 4 dump trucks
- Draw a rectangle to represent the whole amount.

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- Partition the rectangle into the number of pieces that it's being divided into.

ASSESSMENT PLAN

Lesson 4 Exit Ticket: Matthew and his 3 siblings are weeding a flower bed with an area of 9 square yards. If they share the job equally, how many square yards of the flower bed will each child need to weed? Use a tape diagram to show your thinking.

Will students be able to draw a tape diagram representing this problem?

ACCOMMODATIONS

I will have students who need extra support work together with an aid or myself to re-explain the concept of creating a tape diagram from the word problem.