



LESSON

Grade: 2

Topic: Fractions

Sub-topic: Equivalent Fractions

Duration: 60 minutes

Objectives: By the end of the lesson students should be able to:

- Explain the meaning of equivalent fraction.
- Identify and create equivalent fractions of a half and a quarter

Prerequisite Knowledge

Students should already know:

- How to identify a half and a quarter
- How to identify the numerator and denominator
- How to add

Content outline

- Equivalent fractions have the same value.
- $\frac{2}{4}$ is equivalent to $\frac{1}{2}$

Materials/Manipulative

Paper, pencil, fraction strips

Procedure

Engagement

John has a problem. His mother gave him eleven cookies and told him to share the cookies evenly between his little sister Jane and himself. He uses ordinal numbers to share the cookies in the following way and ended up with an extra cookie:

Jane – 1st cookie, 3rd cookie, 5th cookie, 7th cookie, 9th cookie

John – 2nd cookie, 4th cookie, 6th cookie, 8th cookie, 10th cookie

“Who should get the 11th cookie?” he asked himself.

What do you suggest John should do so that they get equal share of all the cookies?

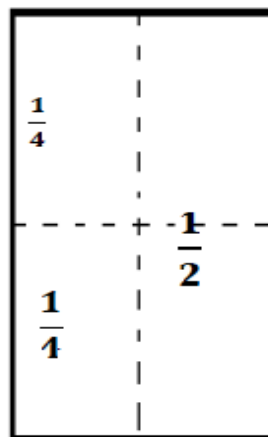
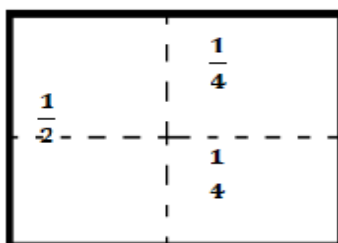
Should they share the 11th cookie?

(Scenario could be roleplayed with two students using cookies)

Main Activities

Exploration

Give students rectangular or square piece of paper and have them fold it once in half and write half on one side of the paper. Then fold the paper a second time allowing the side that was written on to disappear write one quarter on each side of the paper. Unfold the paper to reveal similar diagrams like the ones below:



Questions

What is the relation between $\frac{1}{2}$ and two $\frac{1}{4}$?

Can you explain to a friend why two quarters are the same as a half using the paper?

Allow students to discover that two one quarters make a half. Explain that because two one quarter share the same value as a half, that they are equivalent fractions. Also, that two quarters is represent as:

$$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$$

Explain that equivalent means, 'having the same value'.

Exploration/Explanation

Place students in groups of four. Read a story entitled “The Pizza Story” to students.

Lisa and Ted were talking about what they had for dinner last night. Lisa said, “Ted, last night my family bought a large pizza and I ate $\frac{1}{4}$ of the pizza,” Ted replied, “I can eat more pizza than you. Tuesday night my mom bought a large pizza and I ate $\frac{2}{8}$ of the pizza.” Niko said, “Ted, you didn’t eat more than Lisa. You ate the same amount.”

Who is correct, Ted or Niko?

Direct the students to discuss who had the correct answer- Ted or Niko? On plain paper, the group will finish the sentence, “We know ____ is correct.”

Teacher should tell students: “Today you will be working with fraction strips to understand fractions. At the end of the class, you will have an opportunity to revisit your decision about Niko and Zeb. You will also have a chance to change your original answer.”

- Have students show $\frac{1}{2}$ using the fraction strips.
- Ask your students to find how many $\frac{1}{4}$ fraction strips equal $\frac{1}{2}$.
- Have students share what they discovered.
- Ask students to find how many $\frac{1}{8}$ fraction strips equal $\frac{1}{2}$.
- Have students share what they discovered.

Explanation

Give students one minute to think about that they have learnt in class and be prepared to answer the following questions:

- What have we learnt today?
- Where did we get stuck?
- How did we get unstuck?
- Share feelings and opinions with your partners

Evaluation

- 1) As a group, students are to create $\frac{1}{2}$ using sixths, tenths, and twelfths.
- 2) Teacher should have students review the pizza answer from the beginning of class. They should discuss their original answer with their group and change it if necessary. If changes are made, they need to explain why orally.