SHARING IN RATIO

Subject

Mathematics

Prepared By

[Instructor Name]

Grade Level

5

Overview

This lesson plan covers teaching content for;

1. Sharing in ratio

Objectives

Students should be able to;

1. Share with the help of ratio.

Activity Starter/Instruction

1. James and Helen get pocket money in the ratio 3 : 5. The total amount of pocket money they are given is ₦800. How much money do they each get?

2. Share the ₦800 between the 8 parts by dividing 800 by 8.

   ₦800 ÷ 8 = ₦100

3. James gets 3 X ₦100 = ₦300

   Helen gets 5 X ₦100 = ₦500

Guided Practice

Day 2/ Lesson 2: 15Mins

1. Olivia wants to make pancakes for nine people in the house, but her recipe only makes enough pancakes for three (the recipe is shown below). What quantity of the ingredients will she need to use?

   Pancake recipe (serves 3)

   100g flour

   300ml milk

   2 large eggs

2. To solve this question, you must first identify the ratio. This is a three-part ratio, whereby 100g flour: 300ml milk: 2 large eggs = 100:300:2.

Teacher Guide

Day 1/ Lesson 1: 15Mins

1. Hold a vote to determine the ratio of children who like fruit-flavored chewing gum versus how many like mint-flavored chewing gum.

2. Have the pupils conduct a survey of their classmates or other pupils in the building to determine how many children like fruit gum and how many children like mint gum.

3. Ask the children to use math manipulative, such as actual pieces of gum, to show the ratio. For example, if for every five people who liked fruit gum, two people liked mint gum; their ratio would be 5:2 and would be shown with five sticks of fruit gum next to two sticks of mint gum.

4. Do the same activity for other things such as favorite school lunch or what kind of pets students have at home.

Guided Practice

Day 3/ Lesson 3: 20mins

1. 20 apples are distributed between Aaron and Ben in the ratio 2 : 3. Find, how many does each get?

2. Aaron and Ben get apples in the ratio 2 : 3

Materials Required

-White board

-Marker

-Fruit-flavored gum

-Mint-flavored gum

Additional Resources

- https://digitalcommons.trinity.edu/cgi/viewc
- https://studymaths.co.uk/keytopics/ratio.htm
- https://www.math-only-math.com/dividing-a
- http://passyworldofmathematics.com/sharin
- https://nzmaths.co.nz/resource/sharing-ratic
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Additional Notes

3. This recipe is for three people, but Olivia needs a recipe for nine. As 9/3=3, the ratio needs to be scaled by three (this is sometimes expressed as by a factor of 3).

4. You then need to multiply each part of the ratio by 3:

   100 x 3 = 300

   300 x 3 = 900

   2 x 3 = 6

5. Therefore, to make enough pancakes for nine people, Olivia will need to use 300g flour, 900ml milk and 6 large eggs.

i.e. if Aaron gets 2 parts, B should get 3 parts.

3. In other words, if we make (2 + 3) = 5 equal parts, then Aaron should get 2 parts out of these 5 equal part
   i.e. Aaron gets = 2/5 of the total number of apples = 2/5 of 20 = 2/5 × 20 = 8 apples.

4. Similarly, Ben gets 3 parts out of 5 equal parts
   i.e. Ben gets = 3/5 of the total number of apples = 3/5 of 20 = 3/5 × 20 = 12 apples

5. Therefore, Aaron gets 8 apples and Ben gets 12 apples.

Summary

Select students at random to share their answers with the class