Third Grading

Lesson 56: VisualizingPercent and Its Relationship to Fractions, Ratios and Decimal Numbers Using Models

Week 1

Objective: Visualizespercent and its relationship to fractions, ratios, and decimal numbers using Models.

Value focus: Health consciousness.

Prerequisite concept and Skills:

- Writing decimal numbers, ratios and fractions.
- Multiplying and dividing by multiples of 10 and 5

Materials:

References:K to 12 Grade V Curriculum p 61 (M5NS-IIIa-136), Lesson Guide in Mathematics pp. 402-406, Growing Up with Math pp. 217-219, Math for Life pp. 254-257, Mathematics for a Better Life pp. 208- 210.

Instructional Procedure:

A. Preliminary Activities

1. Drill

Using flash cards. Express each of the following in percent.

5 : 100 62 ; 100 83 : 100 $\frac{43}{100}$ $\frac{74}{100}$

2. Review

Review meaning of percent

Relay Game:
Materials: cardboard strips representing 10's and 1's
Mechanics:
a. Divide pupils into 4 groups.
b. Cardboard strips representing 10's and 1's will be distributed to the four groups.
c. Teacher will gives a problem and the pupil from each group hurriedly answers the questions using the cardboard strips like (85% of the plants were watered. How many percent were not watered?) Pupils having the strips with 10 division and 5 one division each to represent 15% as the answer will reach in front showing the answer.

3. Motivation:

Who among you have baby brother and sisters who still take milk from bottles? Do

You know how to prepare their milk? How many ounces of water do you use? How

many scoops of milk do you put?

(Pupils may say for every 4 ounces of water they put 2 scoop of milk before shaking the bottle.)

Why is it necessary to follow the instruction in preparing milk for your younger brother/sister?

B. Developmental Activities

1. Presentation

Survival Game

Mechanics:

1. Let 5 boys and 5 girls stand in front of the class forming a circle. While the music is being played the participants move around.
2. When the music stops the teacher will say “The boat is sinking group yourselves into 2.”
3. The group continues till the described players necessary to form the ratio is achieved.

Discuss the following to the pupils;

For instance, the first group there are 3 girls and 1 boy left.

Then the ratio of boys to girls is 1;3

The ratio of girls to boys is 3;1

If we are to write the ratio 1;3in fraction which will be the numerator? the denominator?

If we are to get how many percent of the pupils are boys, in relation to the group, divide The numerator by denominator.

$$3\overline{)1.00}$$

.33or 33%

9
10
9
1

There are 33% in relation to the girls in the group.

In decimal, change percent to fraction with denominator of 100. Ten express the fraction as a decimal.

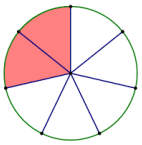
$$\frac{33}{100} = 0.33$$

Or simply drop the % symbol, Then move the decimal point 2 places to the left.

33% = .33 = 0.33

2. Performing the Activities

A. Using pictures the pupils will give the ratio of the number shaded parts to the unshaded
part. Then change them to fractions, decimal and percent.

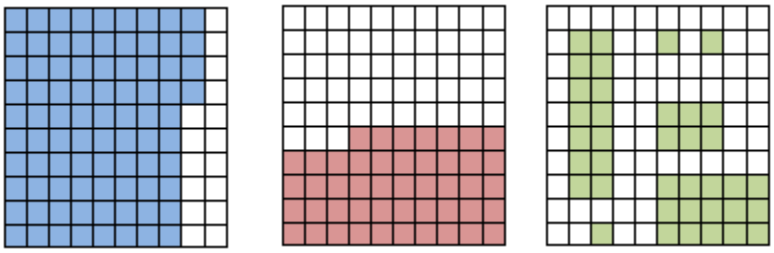


Ratio _____ Fraction _____ Decimal _____ Percent _____

B. Have the pupils work in group.

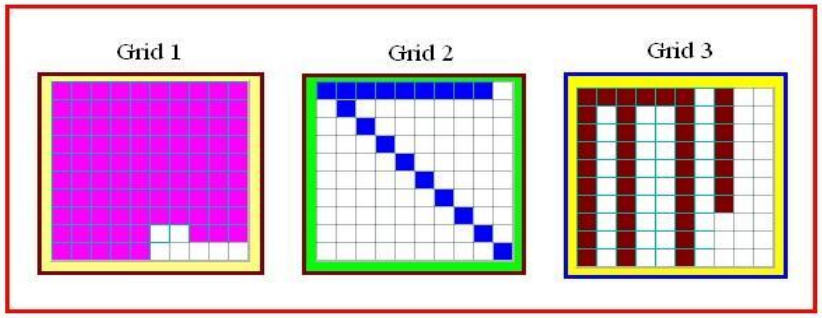
GROUP 1

Name the part as percent.



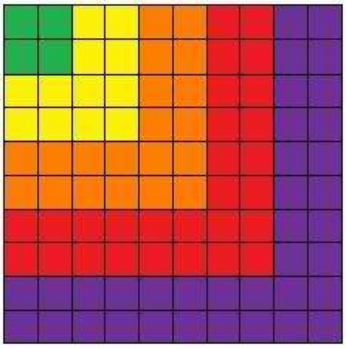
How can you change ratio to percent?

Group 2



1. Write the fraction of the shaded part.
2. Change into decimal.
3. How will you change fraction to decimal?I

Group 3



1. Write the shaded part into ratio.
2. Change it into fraction.
3. How will you change ratio to fraction?

3. Processing Activities

Let the group present their output and answer the questions one at a time. After all the group presented, ask, How did you find the activity? How can you change ratio to fraction? to decimal? Topercent?

Say: Ratio is a comparison between two or more quantities. It can also be expressed as fraction, the first number being the denominator. Through ratios and fractions we can getthe percent equivalent by dividing the numerator by the denominator. The result is a decimal but move the decimal point two places the right and affix the Percent sign.

4. Reinforcing the Concept and Skill

Discuss the presentation on Explore and Discover on page ____ of LM Math Grade 5

Ask the pupil to work on Get Moving on page ____ of LM Grade 5. Check the pupils' answers. For mastery, have the pupils answer the items under Keep Moving on page ____ of LM math Grade 5.

5. Summarizing the Lesson

Lead he pupils to give the following generalization by asking:

What is the relationship of ratios to fractions? topercent?

If your data is written in ratio form, can you write it in fraction form? How can we get percent equivalent of a ratio and a fraction?

> Ratio is a comparison between two or more quantities. It can also be expressed as fraction, the first number being the denominator. Through ratios and fractions we can get the percent equivalent by dividing the numerator by the denominator. The result is a decimal but move the decimal point two places the right and affix the percent sign.

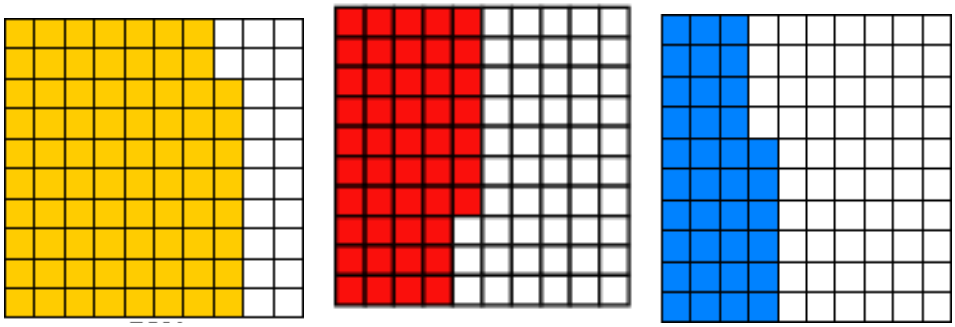
6. Applying to the New and Other Situations

Ask the pupils to do the activity under Apply Your Skills on page ___LM Math Grade 5.

C. Assessment

Write the name for each shaded part as fraction, ratio, percent and decimal

1. 2. 3.



D. Home Activity

Remediation

Complete the table below using the given data

1. The set of even numbers from 1 to 20.
2. The set of odd numbers from 1 to 20.
3. The set of composite numbers from 1 to 20.
4. The set of prime numbers from 1 to 20.

Ratio	Fraction	Percent	Decimal
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Enrichment:

Illustrate each and tell what the fraction ratio, percent and decimal of the set is the given number.

1. 2 in a set of 8 mangoes
2. 3 in a set of 6 watermelons
3. 1 in a set of 5 oranges
4. 4 in a set of 10 guavas
5. 6 in a set of 12 pineapples.