Topic: **Mean**

Grade Level: **Grade 5**

Duration: **1 hour**

Specific Objectives: ***At the end of this lesson, students should be able to:***

- ✓ find the mean of a set of data
- ✓ solve problems based on mean

Prerequisite Knowledge: ***Students should already be able to:***

a) apply the four basic arithmetic operations

Materials/Manipulative:

Counters, number cards

CONTENT OUTLINE

Mean is a measure of central tendency. It is sometimes referred to as average. This is calculated by finding the sum of all the numbers in the set and dividing the sum by the number of elements added.

Procedure

Engage

- Three students will be asked to stand at the front of the class. Twelve counters will be distributed to the students as follows 2, 4, 6.

- The 3 students will be asked to share the counters equally among themselves (*Expected result*: each student will have 4 counters).
- Students will be asked to explain how they share the counters equally.

Explore

✓ The engagement activity will be repeated with nine counters distributed to the students as follows 1, 2, 6.

✓ Students will again be asked to explain how they got their answer.

✓ Other students in the class will be asked if there are other ways they could share the counters equally.

✓ Students will be placed in groups of 3 to 5 depending on the class size. The total number of counters distributed to the group should be a multiple of the number of students in the group.

✓ Each member of the group will be given a bag/container with counters. For example:

– counters in a four-member group could be distributed as follows: 4, 4, 7, 1

– counters in a three-member group could be distributed as follows: 5, 0, 7

✓ The groups will be asked to share their counters equally among the members of the group.

✓ Each group will explain to the class how they shared their counters.

✓ The teacher will help the students to recognize that they put all their counters together then shared them equally and that this process is known as mean.

- ✓ Each group member will be given a number card.
- ✓ Students will be asked to find the mean of the numbers given in their group.

Explain

Each group will display their numbers on the board and write the mean beside them. The class will have a discussion where they will realize that the mean of the numbers is larger than the smallest number and smaller than the largest number.

Students will work individually to find the mean of the following numbers:

(a) 5, 12, 4 (b) 9, 20, 5, 6 (c) 10, 7, 2, 5, 6

Extend:

1. Students will write a journal entry about the process that they used to find the mean of a set of numbers.

2. Students will be asked to write six different numbers that have a mean of:

(a) 8

(b) 6

3. Create a real life problem around the situation in part 2 above.