

Grade 9

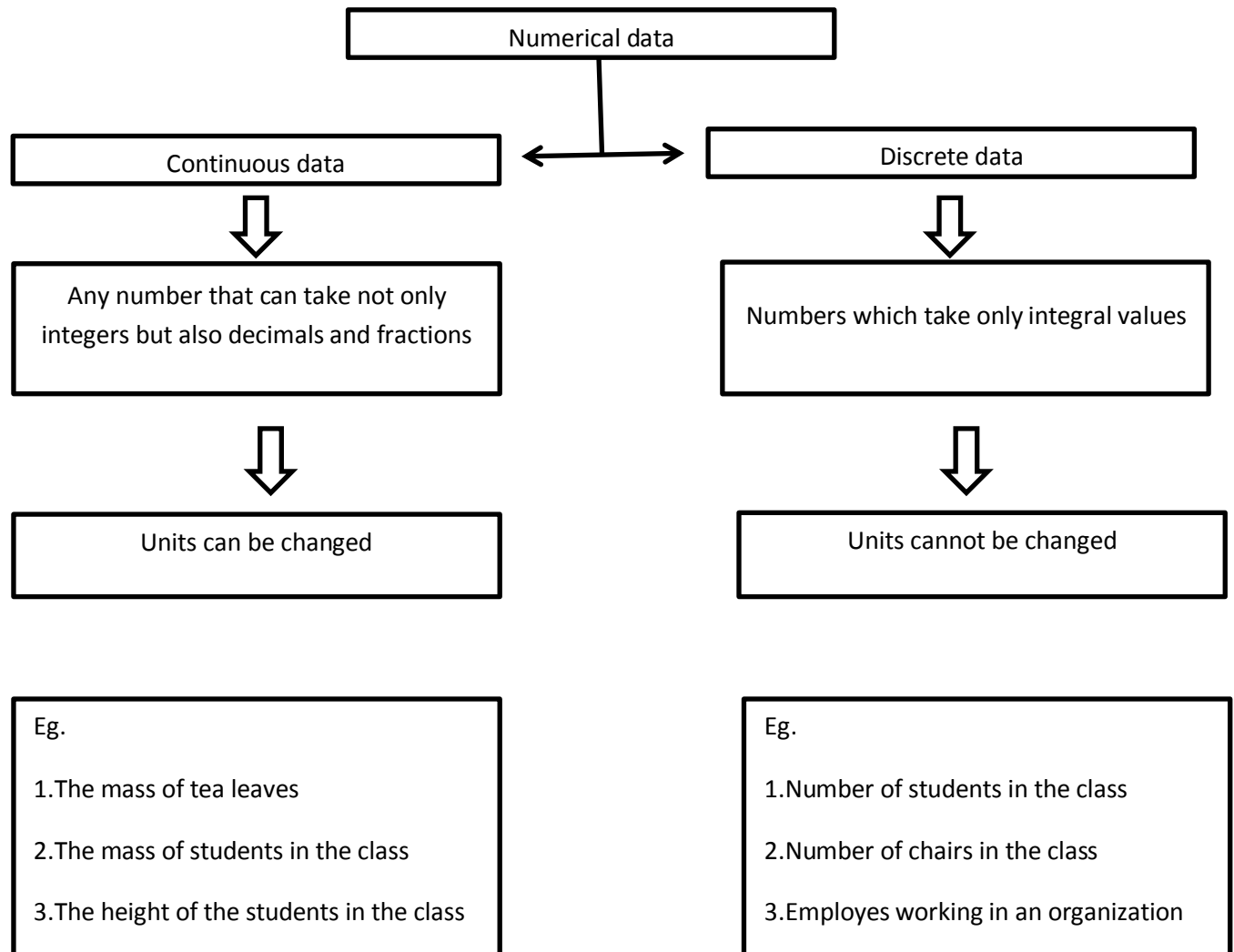
Mathematics

Covid -19 – weekly school

november 3rd week

Data representation and interpretation 1

numerical data



➤ Study your textbook and answer the exercise 26.1

Grouped frequency distributions

When there many distinct data values that are not divided into intervals, it is difficult to compute the data, so they are grouped. For that we will follow the following method.

1. Finding the range of the data set.

Largest value - smallest value = the range

2. Decide the number of class intervals (numbers of equal size are class intervals.)

The range

The number of class intervals = $\frac{\text{The range}}{\text{Size of the class intervals or taking value from 7 to 12 class interval}}$

3. Class size (number of numbers belonging to one class interval)
The range

class size = $\frac{\text{The range}}{\text{the number of class interval}}$ or determining the class size by looking at the range

4. Frequency = the number of values that fall into a class interval

Based on the above information, we will table the following ungrouped marks.

The marks obtained by 50 students for Sinhala in a school are given below.

04, 12, 20, 22, 25, 29, 30, 33, 35, 37, 39, 41, 41, 43, 43, 43, 44, 45, 46, 48, 51, 52, 52, 52, 53, 54, 55, 55, 56, 57, 58, 59, 62, 63, 64, 65, 67, 68, 71, 74, 75, 75, 77, 81, 85, 86, 89, 95

Range = 95 - 04 = 91

class size = $\frac{\text{The range}}{\text{the number of class intervals}} = \frac{91}{10} = 9.1 \rightarrow 9+1=10$

let's take the class intervals up to 91-100. As 1-10, 11-20, 21-30.....

now let's group the data using above information

Class interval (marks)	Tally marks	frequency

(it is not necessary to include the tally marks column in a frequency distribution)

From this table, you will have

- ❖ The ease of communicating data
- ❖ The ease of calculating numerical data
- ❖ The ease of reaching various conclusions.

➤ Study your textbook and answer the exercise 26.2