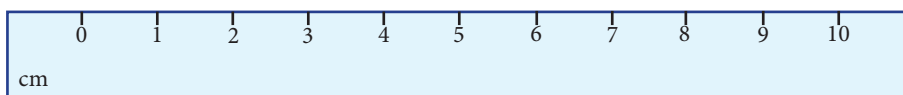


By studying this lesson, you will be able to,

- identify the number line,
- identify negative numbers,
- identify integers,
- represent integers on a number line and
- compare integers.

### 5.1 Marking whole numbers on a number line

Some of the instruments that we use when we perform various tasks are marked with numbers. A ruler which has been calibrated as mentioned is shown below.



Observe whether there are similarities between the ruler depicted above and the ruler in your instrument box.

Several properties which are similar that were obtained through such an observation are given below.

- The measuring edge of a ruler is made straight.
- The whole numbers 0, 1, 2, 3, ... have been marked on it with equal gaps between the numbers, starting from 0 and gradually increasing in value.

Such calibrations can also be observed in a spring balance used to measure weights and a measuring cylinder used to measure liquid amounts.



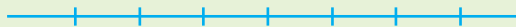


### Activity 1

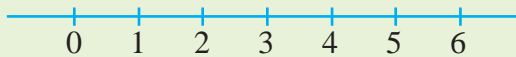
**Step 1** - Draw a line using a ruler as shown in the figure.



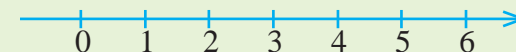
**Step 2** - Mark several points on the line, leaving equal gaps between the points .



**Step 3** - Name the points as 0, 1, 2, 3, 4.... etc., starting from the leftmost point and gradually increasing in value towards the right.



**Step 4** - Draw an arrowhead at the right end of the line.



- A line such as this, which is used to represent numbers is called a **number line**.
- An arrowhead is drawn at the right end of the number line.
- The values of the numbers on a number line increase gradually towards the right.
- The difference between two numbers which are next to each other on the above number line is 1. Two such whole numbers, where the difference between them is 1, are called consecutive whole numbers.
- The quantitative information of certain things can be represented on a number line.
- A number is marked on a number line by placing a dot as shown below.



The numbers 2 and 4 have been marked on the above number line.