

**CHAPTER 01****KNOWING OUR NUMBERS****ESTIMATING AND ROUNDING OFF NUMBERS:**

Let us consider some of these daily life situations where we deal with numbers differently.

In the rally there were nearly 10,000 people.

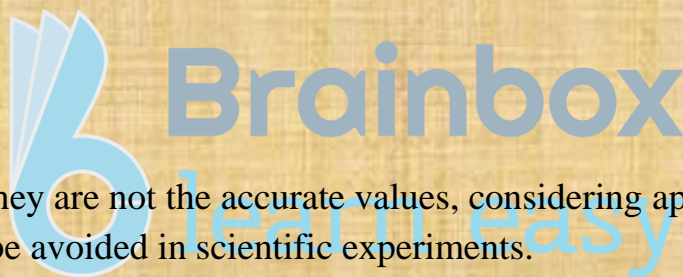
This school bag costs around ₹900.

Approximately 500 guests are expected at the exhibition

It roughly takes an hour to trek that mountain.

These words “nearly”, “approximately”, “around”, “roughly” do not tell us the exact value of the number in discussion. They only tell us that the value mentioned is closer to the actual value. This is called Estimation or Approximation”

The approximation is useful in many situations in our daily life such as how much salt to be added in cooking, how much time will it take to reach a place by car etc. Approximation saves time.



But as they are not the accurate values, considering approximation should be avoided in scientific experiments.

In the statements given below, identify which of them needs the exact number and where the approximate value is enough.

Write E for exact and A for approximate value.

Situation

1. The time clocked by the competitors at the 100m running race.

Ans: Exact

2. Number of visitors who attend a flower show.

Ans: Approximate

3. Number of students who will write the final exam in your class.

Ans: Exact

4. Number of people who lived in the stone age.

Ans: Approximate

5. Amount of money you have to pay the shopkeeper when you buy things.

Ans: Exact

Estimation is a good way of checking answers and it helps us save time. Numbers can be approximated (Rounding off) to any place such as Tens, Hundreds, Thousands and so on. Let us see a few examples.

### ROUNDING OFF

To begin with we shall see how to round off a number to its nearest tens.

Round off the number 72 and 77 to its nearest ten.

You can notice that 72 is closer to 70 hence it is rounded off to previous nearest ten and the number 77 is closer to 80 hence it is rounded off to 80.

**ANIMATION:**



Observe the number 75. It is in the center of the range. It is the middle number. It is equidistant from 70 and 80. However by convention it is rounded off to 80

Animation: as the voice start, the number 75 should be circled and arrow should move to 80

