

**Estimation**

It is a rough calculation of value. We use estimations when we have to deal with large numbers and to do the quick calculations.

**Estimating to the nearest tens by rounding off**



If the digit in the ones places is:

5 or higher, round tens place up

4 or lower, leave tens place as is

Firstly to estimate we need to see where does the number lies.

Here 38 lie between 30 and 40

Secondly, we will see if it is 5 or higher.

Yes it is higher than 5 i.e. 3**8**

Thus the number 7**38** is rounded off to 7**40**.

**Estimating to the nearest hundreds by rounding off**

Round off the number **867**nearest to the hundreds.

It lies between 800 and 900

Now we have to check for tens place. If it is greater than 50 then we will round it off to the upper side and if it is less than 50 then we will round it off on the lower side.

It is 67, which is greater than 50 and is closer to 900.

Thus 867 is rounded off to 900

**Estimating to the nearest thousands by rounding off**

The Numbers from 1 to 499 are rounded off to 0 as they are nearer to 0, and the numbers from 501 to 999 are rounded off to 1000 as they are nearer to 1000

And 500 is always rounded off to 1000.

**Example**

Round off the number 7690 nearest to thousands.

It lies between 7000 and 8000

And is closer to 8000

Thus 7690 is rounded off to 8000.

**To estimate sum or difference**

Estimate: 3,210 + 12,884

**Solution**

3,210 will be rounded off to 3000.

12,884 will be rounded off to 13000.

 3000+ 13000

Estimated solution = 16000

Actual solution = 3,210 + 12 884

= 16,094

**To estimate products**

Estimate: 73 × 18

**Solution**

73 will be rounded off to 70

18 will be rounded off to 20

70 × 20

Estimated solution = 1400

Actual solution = 73 × 18

= 1314