

SESSION : 10 CLASS : 3 SUBJECT : MATHEMATICS CHAPTER NUMBER: 3 CHAPTER NAME : ADDITION SUBTOPIC : ESTIMATION (NEAREST 10)

CHANGING YOUR TOMORROW

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Children will learn :

*To find a value that is close enough to the right answer

*To find an answer which is broadly correct, say to the nearest 10, if you are working with bigger numbers.

* To calculate on quantities of various works & their expenditure, done by the experts of the relevant field before it is executed.





To find something close to the correct answer. Estimation of numbers is the process of approximating or rounding off the numbers in which the value is used for some other purpose in order to avoid the complicated calculations.





When it comes to estimating in math, there is a general rule for you to follow. This general rule tells you to look at the digit to the right of the digit you want to estimate, and if it is less than 5 then you round down, and if it is greater than 5, you round up.

ESTIMATION RULE

If it is less than 5, you round down and if it is more than 5, you round up







RULE TO ROUND OFF TO NEAREST 10 :

1st step: See the next place to the right of the tens place.

2nd step: See the digit in the ones place of the given number.

3rd step: Check whether it is more than or equals to 5 or less than 5.



4th step: If it is more than or equals to 5, then add 1 to the tens place and put 0 in ones place. That means Round up.

5th step: If it is less than 5, there will be no change to the tens place and put 0 in ones place.That means Round down.

6th step: There will be no change to the digits on the left of tens place both in round up or round down.



Now let us understand to ROUND UP

Let the number be 3786 and let us round off to nearest 10.



See the next place to the right of the tens place that is the ones place.

It is 6. 6 > 5, So we have to add 1 to the tens place and write 0 in ones place to round up.

8 is in the tens place, so 8 + 1 = 9

3786 after round off it becomes 3790.



Now let us understand to ROUND UP when there is 9 in tens place.

Let the number be 2697 and let us round off to nearest 10.



See the next place to the right of the tens place that is the ones place.

It is 7.7 > 5, So we have to add 1 to the tens place and write 0 in ones place to round up.

When 9 is in tens place, add 1 to 269, 269+1=270, put 0 in the ones place.

2697 after round off it becomes 2700.



Now let us understand through examples:

Round off the following numbers to the nearest 10

i) 85 ii) 398 iii) 2437

Since ones digit in 85 is 5, we round up.So, it will be 90.

Since ones digit in 398 is 8, we round up. 39 + 1 = 40 and 0 in ones place, So, it will be 400.

Since ones digit in 2437 is 7, we round up. So, it will be 2440.



Now let us understand

Let the number be 5213 and let us round off to nearest 10.



See the next place to the right of the tens place that is the ones place.

It is 3.3 < 5, So there will be no change in the tens place to round down.

We have to write only 0 in once place

So, 5213 after round off it becomes 5210.



Now let us understand through examples:

Round off the following numbers to the nearest 10

i) 63 ii) 454 iii) 3591

Since ones digit in 63 is 3, we round down. So, it will be 60.

Since ones digit in 454 is 4, we round down. So, it will be 450.

Since ones digit in 3591 is 1, we round down. So, it will be 3590.



Exercise-3 H Q. No.- 1 bk. pg. 54 in notebook.



Estimate the following by rounding off to the nearest 10.



Since ones digit in 837 is 7, we round up. So, it will be 840.





Since ones digit in 1241 is 1, we round down. So, it will be 1240.





Since ones digit in 8345 is 5, we round up. So, it will be 8350.





Since ones digit in 6782 is 2, we round down. So, it will be 6780.



Class Work : Exercise-3 H - 1 in notebook. Home Work : Practice Classwork



Students will be able to find a value that is close enough to the right answer, to find an answer which is broadly correct, say to the nearest 10, if you are working with bigger numbers and to calculate on quantities of various works & their expenditure, done by the experts of the relevant field before it is executed.



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