SESSION : 6
CLASS : 3
SUBJECT : MATHEMATICS
CHAPTER NUMBER: 4
CHAPTER NAME : SUBTRACTION
SUBTOPIC : ESTIMATION

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE :

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.

SUBTRACTION
ESTIMATION

ESTIMATION MEANS.........

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.

SUBTRACTION

ESTIMATION

ESTIMATION RULE ....

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 or equals to 5, you round up.

If it is less than 5, you round down and if it is more than or equals to 5, you round up.

< 5

> 5

= 5

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ESTIMATION

RULE TO ROUND OFF TO NEAREST 10 :   **See the ones place.**

RULE TO ROUND OFF TO NEAREST 100 :   **See the tens place.**

RULE TO ROUND OFF TO NEAREST 1000 :   **See the hundreds place.**

If it is more or equals to 5, then add 1 to the place that is to be rounded off and put 0 in the right hand side places. That means Round up.

If it is less than 5, there will be no change to the place that is to be rounded off and put 0 in ones place. That means Round down.

There will be no change to the digits on the left.

SUBTRACTION

ESTIMATION

Now let us understand to ROUND UP a number -

Examples:

	Nearest 10	Nearest 100	Nearest 1000
8 7 6 5	8770	8800	9000
7 8 7 9	7880	7900	8000

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Now let us understand to ROUND DOWN a number -

Examples:

	Nearest 10	Nearest 100	Nearest 1000
4 2 3 1	4230	4200	4000
3 4 1 3	3410	3400	3000

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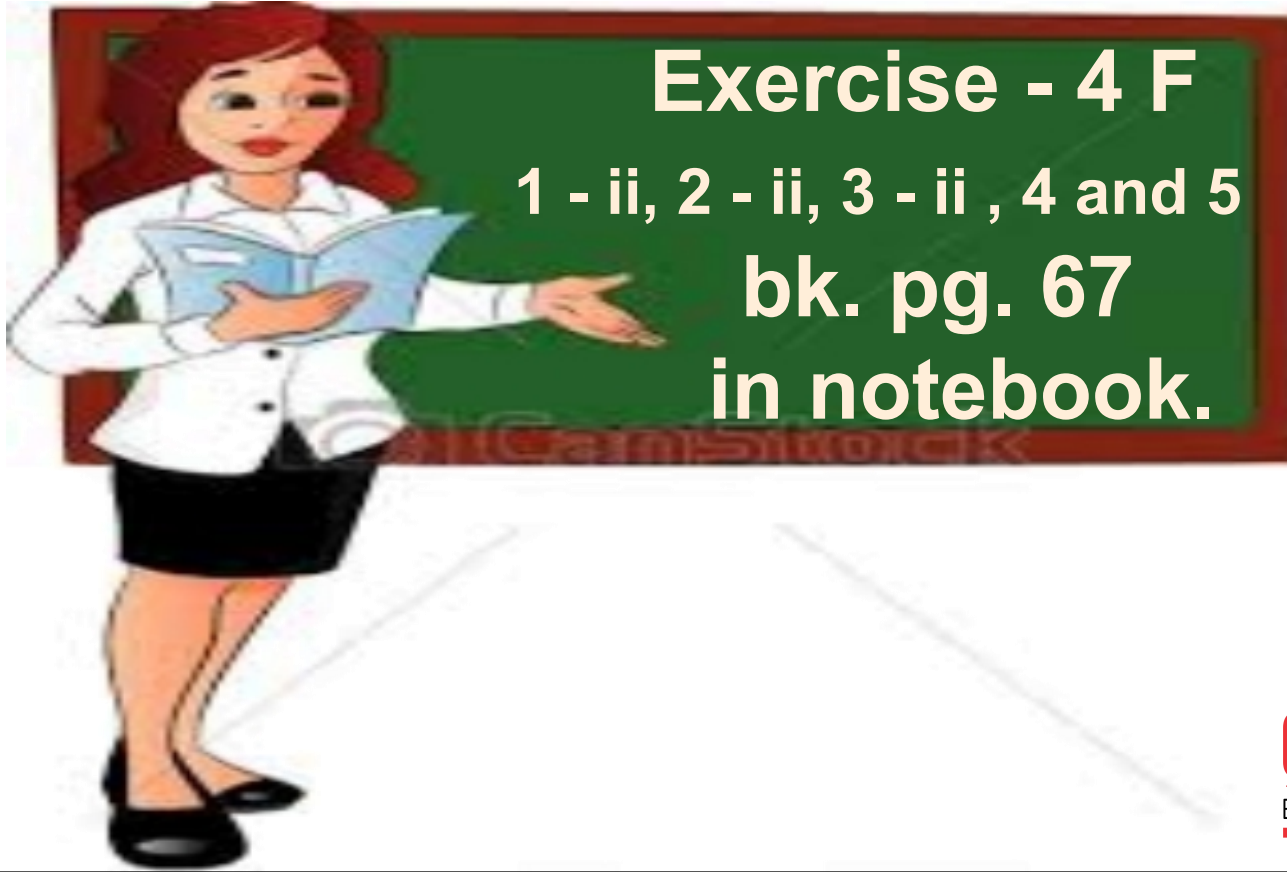
Exercise - 4 F

1 - ii, 2 - ii, 3 - ii , 4 and 5

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in notebook.

SUBTRACTION
ESTIMATION

1. (ii) | **Estimate the following by rounding off to the nearest 10.**

6545 - 3542

Rounding off to nearest 10, we get ---

6550 - 3540 = 3010

Actual difference

= (6545 - 3542) = 3003

$$
\begin{array}{r}
6\ 5\ 5\ 0 \\
-\ 3\ 5\ 4\ 0 \\
\hline
3\ 0\ 1\ 0 \\
\end{array}
$$

$$
\begin{array}{r}
6\ 5\ 4\ 5 \\
-\ 3\ 5\ 4\ 2 \\
\hline
3\ 0\ 0\ 3 \\
\end{array}
$$

SUBTRACTION

ESTIMATION

2. (ii) | **Estimate the following by rounding off to the nearest 100.**

4562 - 1724

Rounding off to nearest 100, we get ---

4600 - 1700 = 2900

Actual difference

= (4562 - 1724) = 2838

$$
\begin{array}{r}
\overset{3}{\cancel{4}}\ \overset{16}{\cancel{6}}\ 0\ 0 \\
-\ 1\ 7\ 0\ 0 \\
\hline
2\ 9\ 0\ 0
\end{array}
$$

$$
\begin{array}{r}
\overset{3}{\cancel{4}}\ \overset{15}{\cancel{5}}\ \overset{5}{\cancel{6}}\ \overset{12}{\cancel{2}} \\
-\ 1\ 7\ 2\ 4 \\
\hline
2\ 8\ 3\ 8
\end{array}
$$

SUBTRACTION
ESTIMATION

3. (ii) **Estimate the following by rounding off to the nearest 1000.**

3284 - 1832

Rounding off to nearest 1000, we get ---

$$\begin{array}{r} 3\ 0\ 0\ 0 \\ -\ 2\ 0\ 0\ 0 \\ \hline 1\ 0\ 0\ 0 \end{array}$$

3000 - 2000 = 1000

Actual difference

= (3284 - 1832) = 1452

$$\begin{array}{r} \overset{2}{\cancel{3}}\ \overset{12}{\cancel{2}}\ 8\ 4 \\ -\ 1\ 8\ 3\ 2 \\ \hline 1\ 4\ 5\ 2 \end{array}$$

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Q 4) In a Panchayat election, the winning candidate obtained 8356 votes while the defeated candidatepolled only 2183 votes. Estimate the difference in their votes to the nearest 100. Find also the actual difference in the votes polled for them.

SUBTRACTION

ESTIMATION

Votes obtained by winning candidate = 8356

Votes obtained by defeated candidate = 2183

8356 - 2183

Rounding off to nearest 100, we get ---

8400 - 2200 = 6200

Actual difference

= (8356 - 2183) = 6173

$$\begin{array}{r} 8\ 4\ 0\ 0 \\ -\ 2\ 2\ 0\ 0 \\ \hline 6\ 2\ 0\ 0 \end{array}$$

$$\begin{array}{r} 8\ 3\ 5\ 6 \\ -\ 2\ 1\ 8\ 3 \\ \hline 6\ 1\ 7\ 3 \end{array}$$

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Q 5) School A had 3756 students while school B had 2356 students. Estimate the difference in the number of students in these two schools to the nearest 1000. Find if it is sameas the actual difference of number of students of each school .

SUBTRACTION

ESTIMATION

Students in school A = 3756

Students in school B = 2356

3756 - 2356

Rounding off to nearest 1000, we get ---

$$
\begin{array}{r}
4\ 0\ 0\ 0 \\
-\ 2\ 0\ 0\ 0 \\
\hline
2\ 0\ 0\ 0
\end{array}
$$

4000 - 2000 = 2000

$$
\begin{array}{r}
3\ 7\ 5\ 6 \\
-\ 2\ 3\ 5\ 6 \\
\hline
1\ 4\ 0\ 0
\end{array}
$$

Actual difference

= (3756 - 2356) = 1400

No it is not.

SUBTRACTION
ESTIMATION
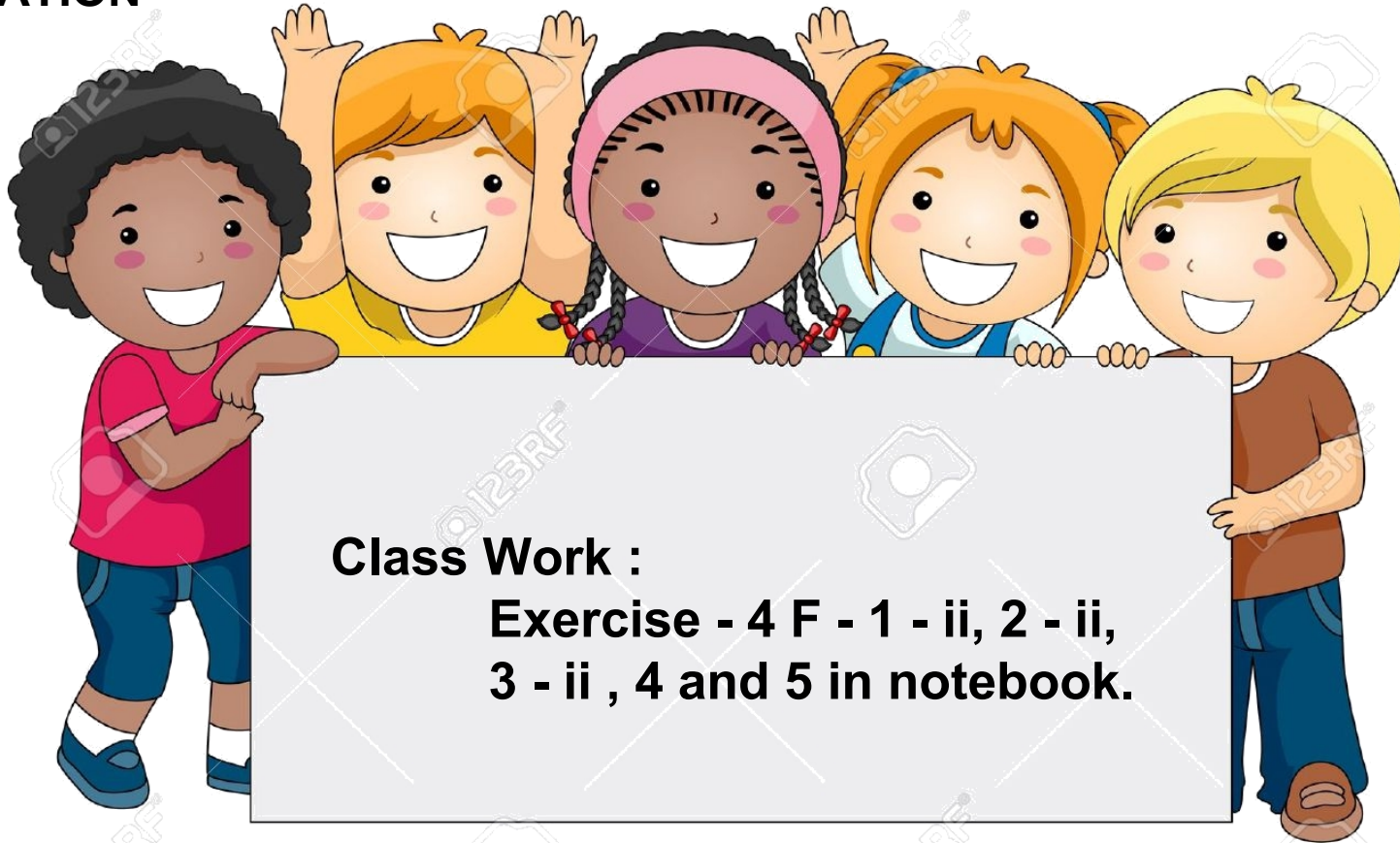
Class Work :
    Exercise - 4 F - 1 - ii, 2 - ii,
    3 - ii , 4 and 5 in notebook.

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.