

4. Multiplication

Exercise - 4P

classmate

Date _____

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A. Estimate the following sums to the nearest hundreds :

1. $173 + 58$

Solⁿ Rounding off to the nearest 100,

$$173 \rightarrow 200 \text{ (as } 7 > 5 \text{)}$$

$$58 \rightarrow 100 \text{ (as } 5 = 5 \text{)}$$

$$\text{Estimated sum} = 200 + 100 = 300$$

$$\text{Actual sum} = 173 + 58 = 231$$

2. $463 + 128$

Solⁿ Rounding off to the nearest 100

$$463 \rightarrow 500 \text{ (as } 6 > 5 \text{)}$$

$$128 \rightarrow 100 \text{ (as } 2 < 5 \text{)}$$

$$\text{Estimated sum} = 500 + 100 = 600$$

$$\text{Actual sum} = 463 + 128 = 591$$

3. $287 + 189$

Solⁿ Rounding off to the nearest 100

$$287 \rightarrow 300 \text{ (as } 8 > 5 \text{)}$$

$$189 \rightarrow 200 \text{ (as } 8 > 5 \text{)}$$

$$\text{Estimated sum} = 300 + 200 = 500$$

$$\text{Actual sum} = 287 + 189 = 476$$

4. $273 + 504$

Sol Rounding off to the nearest 100.

$$273 \rightarrow 300 \text{ (as } 7 > 5)$$

$$504 \rightarrow 500 \text{ (as } 0 < 5)$$

$$\text{Estimated sum} = 300 + 500 = 800$$

$$\text{Actual sum} = 273 + 504 = 777$$

5. $673 + 150$

Sol Rounding off to the nearest 100.

$$673 \rightarrow 700 \text{ (as } 7 > 5)$$

$$150 \rightarrow 200 \text{ (as } 5 = 5)$$

$$\text{Estimated sum} = 700 + 200 = 900$$

$$\text{Actual sum} = 673 + 150 = 823$$

6. $375 + 236$

Sol Rounding off to the nearest 100.

$$375 \rightarrow 400 \text{ (as } 7 > 5)$$

$$236 \rightarrow 200 \text{ (as } 3 < 5)$$

$$\text{Estimated sum} = 400 + 200 = 600$$

$$\text{Actual sum} = 375 + 236 = 611$$

B. Estimate the following to the nearest hundreds :

1. $613 - 156$

Sol Rounding off to the nearest 100 :

$$613 \rightarrow 600 \quad (\text{as } 1 < 5)$$

$$156 \rightarrow 200 \quad (5 \leq 5)$$

$$\text{Estimated difference} = 600 - 200 = 400$$

$$\text{Actual difference} = 613 - 156 = 457$$

2. $725 - 345$

Sol Rounding off to the nearest hundreds :

$$725 \rightarrow 700 \quad (\text{as } 2 < 5)$$

$$345 \rightarrow 300 \quad (\text{as } 4 < 5)$$

$$\text{Estimated difference} = 700 - 300 = 400$$

$$\text{Actual difference} = 725 - 345 = 380$$

3. $875 - 261$

Sol Rounding off to the nearest hundreds :

$$875 \rightarrow 900 \quad (\text{as } 7 > 5)$$

$$261 \rightarrow 300 \quad (6 > 5)$$

$$\text{Estimated difference} = 900 - 300 = 600$$

$$\text{Actual difference} = 875 - 261 = 614$$

4. $352 - 256$

Rounding off to the nearest hundreds.

$$352 \rightarrow 400 \quad (5 = 5)$$

$$256 \rightarrow 300 \quad (5 = 5)$$

$$\text{Estimated difference} = 400 - 300 = 100$$

$$\text{Actual difference} = 352 - 256 = 96$$

5. $528 - 216$

Rounding off to the nearest hundreds.

$$528 \rightarrow 500 \quad (2 < 5)$$

$$216 \rightarrow 200 \quad (1 < 5)$$

$$\text{Estimated difference} = 500 - 200 = 300$$

$$\text{Actual difference} = 528 - 216 = 312$$

6. $879 - 705$

Rounding off to the nearest hundreds.

$$879 \rightarrow 900 \quad (7 > 5)$$

$$705 \rightarrow 700 \quad (0 < 5)$$

$$\text{Estimated difference} = 900 - 700 = 200$$

$$\text{Actual difference} = 879 - 705 = 174$$

c) Estimate each of the following products by rounding off each number to the nearest tens :

1. 37×22

Rounding off to the nearest tens

$$37 \rightarrow 40 \quad (7 > 5)$$

$$22 \rightarrow 20 \quad (2 < 5)$$

$$\text{Estimated product} = 40 \times 20 = 800$$

$$\text{Actual product} = 37 \times 22 = 814$$

2. 23×18

Rounding off to the nearest tens

$$23 \rightarrow 20 \quad (3 < 5)$$

$$18 \rightarrow 20 \quad (8 > 5)$$

$$\text{Estimated product} = 20 \times 20 = 400$$

$$\text{Actual product} = 23 \times 18 = 414$$

3. 41×16

Rounding off to the nearest tens

$$41 \rightarrow 40 \quad (1 < 5)$$

$$16 \rightarrow 20 \quad (6 > 5)$$

$$\text{Estimated product} = 40 \times 20 = 800$$

$$\text{Actual product} = 41 \times 16 = 656$$

Exercise 40.

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Word Problems.

1. A matchbox contains 50 sticks. How many sticks are there in 9 such matchboxes?

Solⁿ $50 \times 9 = 450$

= there are 450 sticks in 9 such matchboxes.

2. In a minute, there are 60 seconds. How many seconds are there in 8 minutes?

Solⁿ 1 minute = 60 seconds.

8 minutes = $8 \times 60 = 480$ seconds

Hence, there are 480 seconds in 8 minutes.

3. There are 75 toffees in a box. How many toffees will be there in 5 such boxes?

Solⁿ $75 \times 5 = 375$

375 toffees will be there in 5 such boxes.

4. The cost of 1 pencil box is ₹35.
Find the cost of 4 such pencil boxes.

$$\begin{array}{r} \text{Sol:} \quad 35 \\ \times 4 \\ \hline 140 \end{array}$$

The cost of 4 such pencil boxes is ₹140.

5. There are 30 days in a month.
How many days are there in 6 months?

$$\begin{array}{r} \text{Sol:} \quad 30 \\ \times 6 \\ \hline 180 \end{array}$$

There are 180 days in 6 months.

6. There are 84 pages in a notebook.
How many pages are there in 4 such notebooks?

$$\begin{array}{r} \text{Sol:} \quad 84 \\ \times 4 \\ \hline 336 \end{array}$$

There are 336 pages in 4 such notebooks.

7. A car can travel 60km in one hour.
How far will it travel in 3 hours?

$$\begin{array}{r} \text{Sol:} \quad 60 \\ \times 3 \\ \hline 180 \end{array}$$

A car can travel 180km in 3 hours.

8. A tree has 62 leaves. How many leaves are there in 7 such trees?

$$\begin{array}{r} \text{Sol:} \quad 62 \\ \times 7 \\ \hline 434 \end{array}$$

There are 434 leaves in 7 such trees.

9. A factory makes 58 toys in a day.
How many toys can be made in 6 days?

Sol

$$\begin{array}{r} 58 \\ \times 6 \\ \hline 348 \end{array}$$

A factory can produce 348 toys in 6 days.

10. In a class, there are 60 students.
Each student requires 8 notebooks.
How many notebooks are needed to fulfill the demand?

Sol

$$\begin{array}{r} 60 \\ \times 8 \\ \hline 480 \end{array}$$

480 notebooks are needed to fulfil the demand.

11. A candle factory produces 55 candles in a day. How many candles will this factory produce in 6 days?

Solⁿ

$$\begin{array}{r} \textcircled{3} \\ 55 \\ \times 6 \\ \hline 330 \end{array}$$

A candle factory produces 330 candles in 6 days.

12. There are 78 buttons in a packet. Find the number of buttons in 8 such packets.

Solⁿ

$$\begin{array}{r} \textcircled{6} \\ 78 \\ \times 8 \\ \hline 624 \end{array}$$

There are 624 buttons in 8 such packets.