

Tender Heart High School ; Sec 33-B Chd.

Class:- V

Date:- 13.05.24

Subject - Mathematics

Teacher - Ms. Sushma

Ch-3 Multiplication and Division

Ex 3.1

A. Write in columns and find the product.

1. 4258×36

$$\begin{array}{r} 4258 \\ \times \quad 36 \\ \hline 25548 \\ + 12774 \times \\ \hline 153288 \end{array}$$

2. 1608×29

$$\begin{array}{r} 1608 \\ \times \quad 29 \\ \hline 14472 \\ + 3216 \times \\ \hline 46632 \end{array}$$

3. 654×308

$$\begin{array}{r} 654 \\ \times 308 \\ \hline 5232 \\ 000 \times \\ 1962 \times \times \\ \hline 201432 \end{array}$$

4. 2035×480

$$\begin{array}{r} 2035 \\ \times 480 \\ \hline 0000 \\ 16280 \times \\ 8140 \times \times \\ \hline 976800 \end{array}$$

B Write the product.

1. 118×200

$$118 \times 200 = 23600$$

$$\begin{array}{r} 118 \\ \times 2 \\ \hline 236 \end{array}$$

2. $111 \times 500 = 55500$

3. $2023 \times 7000 = 14161000$

C. Divide and check your answer.

1. $12686 \div 9$

$$\begin{array}{r} 1409 \\ \hline 9 \overline{) 12686} \\ \underline{-9} \downarrow \downarrow \\ 36 \downarrow \downarrow \\ \underline{-36} \downarrow \downarrow \\ 086 \\ \underline{-81} \\ 5 \end{array}$$

Checking: -

Quotient $\times$ Divisor + Remainder
= Divident

$$= 1409 \times 9 + 5$$

$$= 12681 + 5$$

$$= 12686 = \text{Divident.}$$

Hence Verified.

2. $4987 \div 16$

$$\begin{array}{r} 311 \\ 16 \overline{) 4987} \\ \underline{-48} \downarrow \\ 18 \downarrow \\ \underline{-16} \downarrow \\ 27 \\ \underline{-16} \\ 11 \end{array}$$

Checking: -

Quotient $\times$ Divisor + Remainder = Divident

$$= 311 \times 16 + 11$$

$$= 4976 + 11$$

$$= 4987 = \text{Divident}$$

Hence verified.

$$\begin{array}{r} 311 \\ \times 16 \\ \hline 1866 \\ 311 \times \\ \hline 4976 \\ + 11 \\ \hline 4987 \end{array}$$

3. $3005 \div 18$

Checking:-

$$\begin{array}{r}
 166 \\
 18 \overline{) 3005} \\
 \underline{-184} \\
 120 \\
 \underline{-108} \\
 125 \\
 \underline{-108} \\
 17
 \end{array}$$

Quotient $\times$ Divisor + Remainder = Divident

$= 166 \times 18 + 17$

$= 2988 + 17$

$= 3005 = \text{Divident}$

4. $16254 \div 23$

Checking:-

$$\begin{array}{r}
 706 \\
 23 \overline{) 16254} \\
 \underline{-1614} \\
 154 \\
 \underline{-138} \\
 16
 \end{array}$$

Quotient $\times$ Divisor + Remainder = Divident

$= 706 \times 23 + 16$

$= 16238 + 16$

$= 16254 = \text{Divident}$

D. Find the quotients and remainders without actually dividing.

(i) $6596 \div 10 \Rightarrow Q = 659, \text{ Remainder} = 6$

(ii) $85533 \div 10 \Rightarrow \text{Quotient} = 8553, \text{ Remainder} = 3$

(iii) $9512 \div 100 \Rightarrow Q = 95, R = 12$

(iv) $1239 \div 1000 \Rightarrow Q = 1, R = 239$

(v) $547961 \div 10000 \Rightarrow Q = 54, R = 7961$

Exercise 3.2

Solve these story sums:-

1. A class of 16 students ----- contributed ₹5784?

Soln:- Total no. of students went on a trip = 16
 Money spent on trip in all = ₹12,984
 Money contributed by school = ₹5784.
 Money contributed by students = $12984 - 5784$

$$\begin{array}{r} 12984 \\ - 5784 \\ \hline 7200 \end{array}$$

Money contributed by 16 students = ₹7200

Money contributed by 1 student = $7200 \div 16$

$$\begin{array}{r} 450 \\ 16 \overline{) 7200} \\ \underline{-640} \\ 80 \\ \underline{-80} \\ 00 \\ \underline{-00} \\ 0 \end{array} \quad = ₹450$$

So, Each student has given ₹450 for the trip.

2. There are 98,800 books ----- on 4 shelves?

Soln:-> Total no. of books in a library = 98,800

No. of books on 4 shelves = 400

$$\text{No. of books on 1 shelf} = 400 \div 4 = 100$$

$$\text{No. of shelves required} = \frac{\text{Total No. of books}}{\text{No. of books on 1 shelf.}}$$

$$= 98800 \div 100$$

$$= 988$$

So, 988 shelves are required for 98800 books.

3. Mrs. Kalam earn - - - - - in two years?

Soln:→

$$\begin{aligned} 1 \text{ year} &= 12 \text{ months} \\ 2 \text{ years} &= 24 \text{ months.} \end{aligned}$$

$$\text{Money earned in 1 month} = ₹ 10,250$$

$$\text{Money earned in 24 months} = 10,250 \times 24$$

$$\begin{array}{r} 10\ 250 \\ \times \quad 24 \\ \hline 41000 \\ 20500 \times \\ \hline 246000 \end{array} \quad = ₹ 246,000$$

So, Money earned in 2 years (24 months) is ₹ 246,000

4. In Mrs. Singh's Orchard - - - - - there altogether.

Soln:- No. of rows in orchard = 125
 No. of apple trees in each row = 28

Total no. of trees in the orchard = 125×28

$$\begin{array}{r} 125 \\ \times 28 \\ \hline 1000 \\ 2500 \\ \hline 3500 \end{array}$$

So, There are 3500 trees in Mr. Singh's Orchard.

Q5: Mr. Singh ordered ----- in each row?

Soln:-> No. of apple saplings = 4680
 No. of rows = 18

No. of ~~to~~ saplings planted in each row

$$= 4680 \div 18 = 260$$

$$\begin{array}{r} 260 \\ 18 \overline{) 4680} \\ \underline{-36} \downarrow \\ 108 \\ \underline{108} \downarrow \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

So, There are 260 apple saplings planted in each row.

Q6. In the Orchard, ----- 120 days?

Soln:→ No. of apples plucked in a day = 1240
 No. of apples plucked in 120 days = 1240×120
 $= 148800$

$$\begin{array}{r} 124 \\ \times 12 \\ \hline 248 \\ 124 \times \\ \hline 1488 \end{array}$$

Q7. There are 11,050 raw ----- box contain?

Soln:→ No. of raw apples = 11050
 No. of ripe apples = 11050×2
 $= 22100$

No. of boxes = 850

No. of apples in each box = $22100 \div 850$
 $= 26$

$$\begin{array}{r} 26 \\ 850 \overline{) 22100} \\ \underline{1700} \downarrow \\ 5100 \\ \underline{-5100} \\ 0 \end{array}$$

So, 26 boxes are required.

Q8. Mr. Singh sells ----- does he earn?

Soln:- Cost of 1 box of apples = ₹ 289
 Cost of 256 boxes of apples = 289×256
 = ₹ 73,984

$$\begin{array}{r} 289 \\ \times 256 \\ \hline 1734 \\ 1445 \times \\ 578 \times \times \\ \hline 73984 \end{array}$$

Exercise 3.3

A Estimate the product of each of the following by rounding off each number to the nearest ten.

1. 49×73

Soln:- $49 \rightarrow$ rounds up to 50
 $73 \rightarrow$ rounds down to 70
 Estimated product = 3500

2. 29×62

Soln:- $29 \rightarrow$ rounds up to 30
 $62 \rightarrow$ rounds down to 60
 Estimated product = 1800

3. 77×88

$77 \rightarrow$ rounds up to 80
 $88 \rightarrow$ rounds up to 90

$$\text{Estimated product} = 80 \times 90 \\ = 7200$$

B. Estimate the product of each of the following by rounding off each number to the nearest hundred. (✓)

1. 368×232

Soln:- $368 \rightarrow$ rounds up to 400
 $232 \rightarrow$ rounds down to 200
 Estimated product = 80000

2. 658×359

Soln:- $658 \rightarrow$ rounds up to 700
 $359 \rightarrow$ rounds up to 400
 Estimated product 280000

3. 609×179

$609 \rightarrow$ rounds down to 600
 $179 \rightarrow$ rounds up to 200
 Estimated product 120000

C. Solve these story sums.

1. A nursery - - - - - in the nursery.

Soln:- $728 \rightarrow$ rounded off to the nearest hundred = 700
 $112 \rightarrow$ rounded off to the nearest hundred = 100
70000

$\therefore$ The estimated no. of plants in the nursery = 70000

2. A classroom ----- all the desks.

Soln: $\rightarrow$ 38 rounded off to the nearest ten = 40
 1597 rounded off to the nearest thousand = 2000
80000

$\therefore$ The estimated cost of all the desks = ₹ 80,000

3. A factory ----- 98 days?

Soln: $\rightarrow$ 3154 rounded off to the nearest thousand
 = 3000
 98 rounded off to the nearest ten = 100

$\therefore$ Estimated no. of bottles manufactured by

$$\begin{aligned} \text{a factory} &= 3000 \times 100 \\ &= 3,00,000 \text{ bottles.} \end{aligned}$$

Exercise 3.4

A Find the estimated quotient of each of the following

1. $93 \div 34$

Soln: $\rightarrow$ $93 \div 34$
 93 rounded off to the nearest ten = 90
 34 rounded off to the nearest ten = 30
 $= 90 \div 30$

$$= 9 \div 3$$

$$= 3$$

$$\begin{array}{r} 3 \\ 3 \overline{) 9} \\ \underline{-9} \\ 0 \end{array}$$

$\therefore$ The estimated quotient is 3.

2. $84 \div 17$

$84 \rightarrow$ rounded off to the nearest 10 = 80
 $17 \rightarrow$ rounded off to the nearest 10 = 20

$$= 80 \div 20$$

$$= 8 \div 2$$

$$= 4$$

$$\begin{array}{r} 4 \\ 2 \overline{) 8} \\ \underline{-8} \\ 0 \end{array}$$

$\therefore$ The estimated quotient is 4.

3. $191 \div 23$

$191 \rightarrow$ rounded off to the nearest 100 = 200
 $23 \rightarrow$ rounded off to the nearest 10 = 20

$$= 200 \div 20$$

$$= 20 \div 2$$

$$= 10$$

$$\begin{array}{r} 10 \\ 2 \overline{) 20} \\ \underline{-20} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

$\therefore$ The estimated quotient is 10.

4. $4494 \div 39$

4494 rounded off to the nearest 1000 = 4000
 39 rounded off to the nearest 10 = 40

$$= 4000 \div 40$$

$$= 400 \div 4$$
$$= 100$$

$$\begin{array}{r} 100 \\ 4 \overline{) 400} \\ \underline{-40} \\ 00 \\ \underline{-0} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

∴ The estimated Quotient is 100.

B.	Solve these story sums.
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1. A bus travelled ----- it reached Manali.

Soln: $\rightarrow$ 889 rounded off to the nearest hundred = 900 km
47 rounded off to the nearest ten = 50 km

$$\begin{aligned} &= 90\phi \div 5\phi \\ &= 90 \div 5 \\ &= 18 \end{aligned}$$

$$\begin{array}{r} 18 \\ 5 \overline{) 90} \\ \underline{-54} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

So, In 18 hours the bus reached Manali.

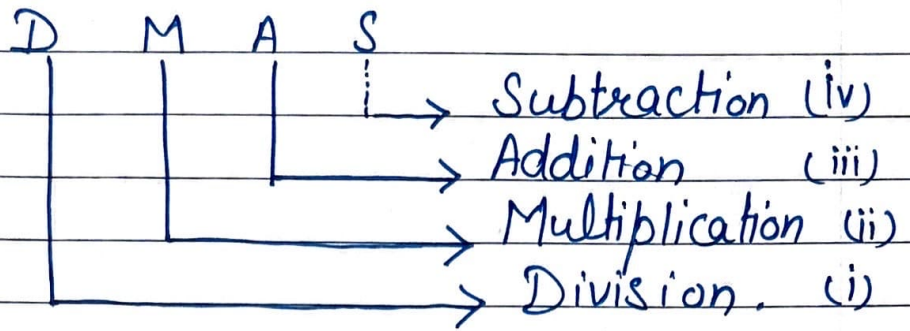
2. Mrs. Banerjee ----- of each ticket?

Soln:-
4224 rounded off to the nearest thousand = 4000
33 " " " " ten = 30

$$\begin{aligned} &= 400 \div 3 \\ &= 133 \text{ (Approx)} \end{aligned}$$

$$\begin{array}{r} 133 \\ 3 \overline{) 400} \\ \underline{-300} \\ 100 \\ \underline{-90} \\ 100 \\ \underline{-90} \\ 100 \\ \underline{-90} \\ 100 \\ \underline{-90} \\ 100 \end{array}$$

$\therefore$ Approximate cost of each ticket is £133.



Exercise 3.5

Simplify:-

$$1. \quad 8 + 12 - \underline{6 \times 2}$$

$$= \underline{8 + 12} - 12$$

$$= 20 - 12$$

$$= 8$$

$$2. \quad 4 \times 5 + \underline{30 \div 5}$$

$$= \underline{4 \times 5} + 6$$

$$= 20 + 6$$

$$= 26$$

$$3. \quad 3 + \underline{40 \div 10} - 3$$

$$= \underline{3 + 4} - 3$$

$$= 7 - 3$$

$$= 4$$

$$4. \quad 14 + 7 \times 2 - \underline{16 \div 2}$$

$$= 14 + \underline{7 \times 2} - 8$$

$$= \underline{14 + 14} - 8$$

$$= 28 - 8$$

$$= 20$$

$$5. \quad 2 + \underline{4 \times 6} - \underline{2 \times 6}$$

$$= \underline{2 + 24} - 12$$

$$= 26 - 12$$

$$= 14$$

$$6. \quad 20 \times 5 - \underline{100 \div 100}$$

$$= \underline{20 \times 5} - 1$$

$$= 100 - 1$$

$$= 99$$

$$7. \quad 8 + \underline{20 \div 5} - \underline{0 \div 3}$$

$$= \underline{8 + 4} - 0$$

$$= 12 - 0 = 12$$

$$8. \quad 75 \times 0 - \underline{0 \div 75}$$

$$= 75 \times 0 - 0$$

$$= 0 - 0$$

$$= 0$$

$$9. \quad 39 - 0 + \underline{5 \times 999}$$

$$= \underline{39} - 0 + \underline{4995}$$

$$= 5034 - 0$$

$$= 5034$$

