

Chapter - 3

Multiplication and Division

Exercise 3.1

Q1. Multiply the following:-

(i) 286×125

$$\begin{array}{r} 286 \\ \times 125 \quad (100+20+5) \\ \hline 1430 \quad (286 \times 5) \\ 5720 \quad (286 \times 20) \\ 28600 \quad (286 \times 100) \\ \hline 35750 \text{ Ans} \end{array}$$

(iii) 637×380

$$\begin{array}{r} 637 \\ \times 380 \quad (300+80+0) \\ \hline 000 \quad (637 \times 0) \\ 50960 \quad (637 \times 80) \\ 191100 \quad (637 \times 300) \\ \hline 242060 \text{ Ans} \end{array}$$

(ii) 677×212

$$\begin{array}{r} 677 \\ \times 212 \quad (200+10+2) \\ \hline 1354 \quad (677 \times 2) \\ 6770 \quad (677 \times 10) \\ 135400 \quad (677 \times 200) \\ \hline 143524 \text{ Ans} \end{array}$$

(iv) 999×400

$$\begin{array}{r} 999 \\ \times 400 \quad (400+00+0) \\ \hline 000 \quad (999 \times 0) \\ 0000 \quad (999 \times 00) \\ 399600 \quad (999 \times 400) \\ \hline 399600 \text{ Ans} \end{array}$$

$$\begin{array}{r}
 \text{(vi)} \quad 777 \times 222 \\
 \quad 777 \\
 \times 222 \quad (200 + 20 + 2) \\
 \hline
 1554 \quad (777 \times 2) \\
 15540 \quad (777 \times 20) \\
 155400 \quad (777 \times 200) \\
 \hline
 172494 \quad \text{Ans}
 \end{array}$$

$$\begin{array}{r}
 \text{(vii)} \quad 609 \times 605 \\
 \quad 609 \\
 \times 605 \quad (600 + 00 + 5) \\
 \hline
 3045 \quad (609 \times 5) \\
 0000 \quad (609 \times 00) \\
 365400 \quad (609 \times 600) \\
 \hline
 368445 \quad \text{Ans}
 \end{array}$$

$$\begin{array}{r}
 \text{(viii)} \quad 987 \times 321 \\
 \quad 987 \\
 \times 321 \quad (300 + 20 + 1) \\
 \hline
 987 \quad (987 \times 1) \\
 19740 \quad (987 \times 20) \\
 296100 \quad (987 \times 300) \\
 \hline
 316827 \quad \text{Ans}
 \end{array}$$

$$\begin{array}{r}
 \text{(viii)} \quad 845 \times 599 \\
 \quad 845 \\
 \times 599 \quad (500 + 90 + 9) \\
 \hline
 7605 \quad (845 \times 9) \\
 76050 \quad (845 \times 90) \\
 422500 \quad (845 \times 500) \\
 \hline
 506155 \quad \text{Ans}
 \end{array}$$

$$\begin{array}{r}
 \text{(ix)} \quad 988 \times 514 \\
 \quad 988 \\
 \times 514 \quad (500 + 10 + 4) \\
 \hline
 3952 \quad (988 \times 4) \\
 9880 \quad (988 \times 10) \\
 494000 \quad (988 \times 500) \\
 \hline
 507832 \quad \text{Ans}
 \end{array}$$

$$\begin{array}{r}
 \text{(x)} \quad 900 \times 888 \\
 \quad 900 \\
 \times 888 \quad (800 + 80 + 8) \\
 \hline
 7200 \quad (900 \times 8) \\
 72000 \quad (900 \times 80) \\
 720000 \quad (900 \times 800) \\
 \hline
 799200
 \end{array}$$

Question 2.

Multiply following Devanagari script numbers-

- (i) ५६२ × ३८४ (ii) ७१५ × २६०
(iii) ४३६ × ५०० (iv) ६१६ × ६३४
(v) ८२३ × ४९२

Solution.

(i) ५६२ × ३८४

$$\begin{array}{r} ५६२ \\ \times ३८४ \quad (३०० + ८० + ४) \\ \hline २२४८ \quad \leftarrow ५६२ \times ४ \\ ४४९६० \quad \leftarrow ५६२ \times ८० \\ १६८६०० \quad \leftarrow ५६२ \times ३०० \\ \hline २१५८०८ \quad \text{Ans.} \end{array}$$

(ii) ७१५ × २६०

$$\begin{array}{r} ७१५ \\ \times २६० \quad (२०० + ६० + ०) \\ \hline ००० \quad \leftarrow ७१५ \times ० \\ ४२९०० \quad \leftarrow ७१५ \times ६० \\ १४३००० \quad \leftarrow ७१५ \times २०० \\ \hline १८५९०० \quad \text{Ans.} \end{array}$$

(iii) 436×400

436	
<u>$\times 400$</u>	$(400 + 00 + 0)$
000	$\leftarrow 436 \times 0$
000	$\leftarrow 436 \times 00$
<u>294400</u>	$\leftarrow 436 \times 400$
<u>294400</u>	Ans.

(iv) 626×638

626	
<u>$\times 638$</u>	$(600 + 30 + 8)$
2848	$\leftarrow 626 \times 8$
18780	$\leftarrow 626 \times 30$
<u>375600</u>	$\leftarrow 626 \times 600$
<u>390488</u>	Ans.

(v) 623×492

$$\begin{array}{r} 623 \\ \times 492 \\ \hline \end{array} \quad (400 + 90 + 2)$$

1246 ← 623×2

55860 ← 623×90

249200 ← 623×400

249200
55860
1246 **Ans.**

Q3. A packet of toffee _____ 45 packets?

Ans. No. of toffees in 45 packets = 225×45

$$\begin{array}{r} \Rightarrow 225 \\ \times 45 \quad (40+5) \\ \hline 1125 \quad (225 \times 5) \\ 9000 \quad (225 \times 40) \\ \hline 10125 \text{ Ans} \end{array}$$

Q4. 165 students _____ donar.

Ans. total amount donated by donar = 550×165

$$\begin{array}{r} \Rightarrow 550 \\ \times 165 \quad (100+60+5) \\ \hline 2750 \quad (550 \times 5) \\ 33000 \quad (550 \times 60) \\ 55000 \quad (550 \times 100) \\ \hline 90750 \text{ Ans} \end{array}$$

Q5. 200 litre oil _____ drums?

Ans. oil in 340 drums = 220×340

$$\begin{array}{r} \Rightarrow 220 \\ \times 340 \quad (300+40+0) \\ \hline 000 \quad (220 \times 0) \\ 8800 \quad (220 \times 40) \\ 66000 \quad (220 \times 300) \\ \hline 74800 \text{ Ans} \end{array}$$

Q6. Cost of a chair _____ Such chairs.

Ans price of a single chair is = ₹ 678
price of 296 chairs \Rightarrow ₹ 678 \times 296 = ₹ 200688

$$\begin{array}{r} \text{₹ } 678 \\ \times 296 \text{ (200 + 90 + 6)} \\ \hline 4068 \text{ (678 } \times 6) \\ 61020 \text{ (678 } \times 90) \\ 135600 \text{ (678 } \times 200) \\ \hline \text{₹ } 200688 \text{ Ans} \end{array}$$

Q7. If 525 plants _____ 213 beds.

Ans no. of plants \Rightarrow 525 \times 213

$$\begin{array}{r} 525 \\ \times 213 \text{ (200 + 10 + 3)} \\ \hline 1575 \text{ (525 } \times 3) \\ 5250 \text{ (525 } \times 10) \\ 105000 \text{ (525 } \times 200) \\ \hline 111825 \text{ Ans} \end{array}$$

Q8. 408 balls _____ 634 boxes.

no. of balls \Rightarrow 408 \times 634

$$\begin{array}{r} 408 \\ \times 634 \text{ (600 + 30 + 4)} \\ \hline 1632 \text{ (408 } \times 4) \\ 12240 \text{ (408 } \times 30) \\ 244800 \text{ (408 } \times 600) \\ \hline 258672 \text{ Ans} \end{array}$$

Q9. Price of a books _____ books ?

price of total books ₹ 250 x 140

$$\begin{array}{r} \Rightarrow 250 \\ \times 140 \quad (100 + 40 + 0) \\ \hline 000 \quad (250 \times 0) \\ 10000 \quad (250 \times 40) \\ 25000 \quad (250 \times 100) \\ \hline 35000 \text{ Ans} \end{array}$$

Q10. In a boys hostel _____ 30 days ?

Ans. total amount spent \Rightarrow ₹ 350 x 30

$$\begin{array}{r} \Rightarrow 350 \\ \times 30 \quad (30 + 0) \\ \hline 000 \quad (350 \times 0) \\ 10500 \quad (350 \times 30) \\ \hline 10500 \text{ Ans} \end{array}$$

Q11. There are 128 trees _____ that garden ?

Ans. ~~No.~~ of trees (rows) 128 x 217

$$\begin{array}{r} \Rightarrow 128 \\ \times 217 \quad (200 + 10 + 7) \\ \hline 896 \quad (128 \times 7) \\ 1280 \quad (128 \times 10) \\ 25600 \quad (128 \times 200) \\ \hline 27776 \text{ Ans} \end{array}$$

Q12. There are 112 guavas _____ 190 baskets ?

Ans no. of guavas in baskets = 112×190

$$\begin{array}{r} \Rightarrow 112 \\ \times 190 \quad (100 + 90 + 0) \\ \hline 000 \quad (112 \times 0) \\ 10080 \quad (112 \times 90) \\ \underline{11200} \quad (112 \times 100) \\ \hline 21280 \text{ Ans} \end{array}$$

Exercise 3.2

Q1. Solve the following

(i) $255 \div 15$

$$\begin{array}{r} 17 \\ 15 \overline{) 255} \\ \underline{-15} \\ 105 \\ \underline{-105} \\ 000 \end{array}$$

Q = 17
R = 0

(ii) $312 \div 12$

$$\begin{array}{r} 26 \\ 12 \overline{) 312} \\ \underline{-24} \\ 72 \\ \underline{-72} \\ 00 \end{array}$$

Q = 26
R = 0

$$\begin{array}{r} \text{(iii)} \quad 640 \div 16 \\ \quad \quad 40 \\ 16 \overline{) 640} \\ \underline{-64} \downarrow \\ \quad \quad 000 \end{array}$$

Q = 40
R = 0

$$\begin{array}{r} \text{(iv)} \quad 702 \div 13 \\ \quad \quad 54 \\ 13 \overline{) 702} \\ \underline{-65} \downarrow \\ \quad \quad 52 \\ \underline{-52} \\ \quad \quad \quad 00 \end{array}$$

Q = 54
R = 0

$$\begin{array}{r} \text{(v)} \quad 357 \div 21 \\ \quad \quad 17 \\ 21 \overline{) 357} \\ \underline{-21} \downarrow \\ \quad \quad 147 \\ \underline{-147} \\ \quad \quad \quad 0 \end{array}$$

Q = 17
R = 0

$$\begin{array}{r} \text{(vi)} \quad 770 \div 28 \\ \quad \quad 27 \\ 28 \overline{) 770} \\ \underline{-56} \downarrow \\ \quad \quad 210 \\ \underline{-196} \\ \quad \quad \quad 14 \end{array}$$

Q = 27
R = 14

$$\begin{array}{r} \text{(vii)} \quad 952 \div 34 \\ \quad \quad 28 \\ 34 \overline{) 952} \\ \underline{-68} \downarrow \\ \quad \quad 272 \\ \underline{-272} \\ \quad \quad \quad 000 \end{array}$$

Q = 28
R = 0

$$\begin{array}{r} \text{(viii)} \quad 847 \div 18 \\ \quad \quad 47 \\ 18 \overline{) 847} \\ \underline{-72} \downarrow \\ \quad \quad 127 \\ \underline{-126} \\ \quad \quad \quad 001 \end{array}$$

Q = 47
R = 1

$$\begin{array}{r}
 \text{(ix)} \quad 656 \div 23 \\
 \quad \quad 28 \\
 \hline
 23 \overline{) 656} \\
 \underline{-46} \downarrow \\
 196 \\
 \underline{-184} \\
 \hline
 012
 \end{array}$$

Q = 28
R = 12

$$\begin{array}{r}
 \text{(x)} \quad 945 \div 35 \\
 \quad \quad 27 \\
 \hline
 35 \overline{) 945} \\
 \underline{-70} \downarrow \\
 245 \\
 \underline{-245} \\
 \hline
 000
 \end{array}$$

Q = 27
R = 00

Question 2.

Divide following Devanagari script numbers-

(i) ६८४ ÷ १९

(ii) ७२५ ÷ २५

(iii) ८५८ ÷ ३३

(iv) ४३७ ÷ १६

(v) ५६९ ÷ २३

Solution:

(i) ६८४ ÷ १९

$$\begin{array}{r} 36 \\ 19 \overline{) 684} \\ \underline{-49} \\ 194 \\ \underline{-194} \\ 000 \end{array}$$

Here Quotient = ३६
Remainder = ००

(ii) ७२५ ÷ २५

$$\begin{array}{r} 29 \\ 25 \overline{) 725} \\ \underline{-40} \\ 225 \\ \underline{-225} \\ 000 \end{array}$$

Here Quotient = २९
Remainder = ००

(iii) $646 \div 33$

$$\begin{array}{r} 26 \\ 33 \overline{) 646} \\ \underline{-66} \\ 196 \\ \underline{-198} \\ 000 \end{array}$$

Here Quotient = 26

Remainder = 00

(iv) $437 \div 16$

$$\begin{array}{r} 27 \\ 16 \overline{) 437} \\ \underline{-32} \\ 117 \\ \underline{-112} \\ 5 \end{array}$$

Here Quotient = 27

Remainder = 5

(v) $469 \div 23$

$$\begin{array}{r} 28 \\ 23 \overline{) 469} \\ \underline{-46} \\ 109 \\ \underline{-92} \\ 17 \end{array}$$

Here Quotient = 28, Remainder = 17

Q3. Chaya bought _____ one copy?

Ans Cost of one copy = $360 \div 20$

$$\begin{array}{r} 18 \\ 20 \overline{) 360} \\ \underline{- 20} \\ 160 \\ \underline{- 160} \\ 000 \end{array}$$

Therefore, cost of 1 copy = ₹18

Q4. Dheeraj has _____ he have?

Ans No. of banana = $864 \div 12$

$$\begin{array}{r} 72 \\ 12 \overline{) 864} \\ \underline{- 84} \\ 024 \\ \underline{- 24} \\ 00 \end{array}$$

Therefore, Dheeraj has 72 dozen bananas.

Q5. Omkar has _____ with him?

Ans Total cloth = $400 \div 30$

$$\begin{array}{r} 13 \\ 30 \overline{) 400} \\ \underline{- 30} \\ 100 \\ \underline{- 90} \\ 10 \end{array}$$

Therefore Omkar can buy 13 m. cloth and ₹ 10 left with him.

Q6. If 702 ~~total~~ people _____ in a bus?

Ans No of people sit in 1 bus = $702 \div 27$

$$\begin{array}{r} 26 \\ 27 \overline{) 702} \\ \underline{- 54} \\ 162 \\ \underline{- 162} \\ 000 \end{array}$$

Therefore 26 ~~total~~ people can sit in 1 bus.

Q7. How many garlands _____ 24 flowers?

Ans Total Garlands = $648 \div 24$

$$\begin{array}{r} 27 \\ 24 \overline{) 648} \\ \underline{- 48} \\ 168 \\ \underline{- 168} \\ 000 \end{array}$$

Therefore, 27 Garlands can be made.

Q8. Find the number of years in 936 months.

Ans. Therefore total months = $936 \div 12$

$$\begin{array}{r} 78 \\ 12 \overline{) 936} \\ \underline{-84} \\ 96 \\ \underline{-96} \\ 00 \end{array}$$

Therefore, there is 78 Years.

Q9. Cost of 15 copies _____ one copy.

Ans. Cost of 1 copy = $180 \div 15$

$$\begin{array}{r} 12 \\ 15 \overline{) 180} \\ \underline{-15} \\ 030 \\ \underline{-30} \\ 00 \end{array}$$

Therefore, Cost of 1 copy = 12

Q10. A total of 682 oranges _____ one Carton?

Ans. no. of oranges = $682 \div 31$

$$\begin{array}{r} 22 \\ 31 \overline{) 682} \\ \underline{-62} \\ 062 \\ \underline{-62} \\ 00 \end{array}$$

Therefore, no of oranges \Rightarrow 22