ST. ANDREWS SCOTS SCHOOL

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(Session-2025- 26)

Class: IV Subject: Mathematics Topic: Unit -3 (Multiplication and Division)

Questions to be done-

Warm up Page- 41

Ex-1 Q.1 (Book)

Q.2 (b,e)(Notebook)

Q.3 (b) (Notebook)

Ex -2 Q.1,Q.4, Q.5, Q.6, Q.11, Q.12 (Notebook)

Ex -3 Q.1 (Book)

Q.2 (a,c,f)(Notebook)

Q.3 (b,c,e,f) (Notebook)

Ex -4 Q.1 (a, c) Q.2. (b,d) (Notebook)
Q.3, Q.5, Q.6, Q.7, Q.8 (Notebook)

Ex -5 Q.1, Q.3, Q.4, Q.6, Q.7 (Notebook)

Ex -6 Q.1(Book)
Q.2 (b,d) (Notebook)

Ex -7 Q.1(a,d,f)(Notebook)
Q.2(a,e,f)(Notebook)
Q.3(b,c,d)(Notebook)

Ex -8 Q.1 (a,c,f,g) (Notebook)
Q.3, Q.5 (Notebook)

Ex -9 Q.2, Q.4, Q.5, Q.7 (Notebook)

Ex- 10 Q.1 (Book), Q.3, Q.5 (Notebook)

Lesson-3 : Multiplication and Division

Warm Up

48	÷	4	=	12
÷		×		÷
6	×	2	=	12
=		=		=
8	÷	8	=	1

225	÷	5	=	45
÷		×		÷
3	×	15	=	45
=		=		=
75	÷	75	=	1

Exercise-1

1. **(a)** 185 **(b)** 270 **(c)** 0 **(d)** 0
(e) 928 **(f)** 928 **(g)** 413 **(h)** 68

2. **(b)** $7 \times (11 + 8) = 7 \times 11 + 7 \times 8 = 77 + 56 = 133$
(c) $6 \times (15 + 6) = 6 \times 15 + 6 \times 6 = 90 + 36 = 126$
(d) $4 \times (23 + 5) = 4 \times 23 + 4 \times 5 = 92 + 20 = 112$
(e) $5 \times (48 + 11) = 5 \times 48 + 5 \times 11 = 240 + 55 = 295$

3. **(b)** $(11 \times 4) \times 7 = 44 \times 7 = 308$
$11 \times (4 \times 7) = 11 \times 28 = 308$
$(11 \times 7) \times 4 = 77 \times 4 = 308$
(c) $(14 \times 9) \times 3 = 126 \times 3 = 378$
$14 \times (9 \times 3) = 14 \times 27 = 378$
$(14 \times 3) \times 9 = 42 \times 9 = 378$

Exercise-2

1. $15 \times 6 = (10 + 5) \times 6 = 10 \times 6 + 5 \times 6 = 60 + 30 = 90$

2. $5 \times 43 = 5 \times (40 + 3) = 5 \times 40 + 5 \times 3 = 200 + 15 = 215$

3. $39 \times 8 = (30 + 9) \times 8 = 30 \times 8 + 9 \times 8 = 240 + 72 = 312$

4. $27 \times 9 = (20 + 7) \times 9 = 20 \times 9 + 7 \times 9 = 180 + 63 = 243$

5. $115 \times 3 = (100 + 10 + 5) \times 3 = 100 \times 3 + 10 \times 3 + 5 \times 3 = 300 + 30 + 15 = 345$

6. $455 \times 2 = (400 + 50 + 5) \times 2 = 400 \times 2 + 50 \times 2 + 5 \times 2 = 800 + 100 + 10 = 910$

7. $9 \times 515 = 9 \times (500 + 10 + 5) = 9 \times 500 + 9 \times 10 + 9 \times 5 = 4500 + 90 + 45 = 4635$

8. $325 \times 7 = (300 + 20 + 5) \times 7 = 300 \times 7 + 20 \times 7 + 5 \times 7 = 2100 + 140 + 35 = 2275$

9. $1935 \times 6 = (1000 + 900 + 30 + 5) \times 6 = 1000 \times 6 + 900 \times 6 + 30 \times 6 + 5 \times 6$
$= 6000 + 5400 + 180 + 30 = 11610$

10. $3 \times 6705 = 3 \times (6000 + 700 + 5) = 3 \times 6000 + 3 \times 700 + 3 \times 5$
$= 18000 + 2100 + 15 = 20115$

11. $2005 \times 5 = (2000 + 5) \times 5 = 2000 \times 5 + 5 \times 5 = 10000 + 25 = 10025$

12. $8903 \times 6 = (8000 + 900 + 3) \times 6 = 8000 \times 6 + 900 \times 6 + 3 \times 6$
$= 48000 + 5400 + 18 = 53418$

Exercise-3

1. (a) (i) $5217 \times 100 = 521700$

(b) (i) $499 \times 1000 = 499000$

2. (a) $627 \times 500 = 627 \times 5 \times 100 = (627 \times 5) \times 100 = 3135 \times 100 = 313500$

(b) $99 \times 200 = 99 \times 2 \times 100 = 198 \times 100 = 19800$

(c) $136 \times 400 = 136 \times 4 \times 100 = 544 \times 100 = 54400$

(d) $44 \times 4000 = 44 \times 4 \times 1000 = 176 \times 1000 = 176000$

(e) $1203 \times 700 = 1203 \times 7 \times 100 = 8421 \times 100 = 842100$

(f) $109 \times 6000 = 109 \times 6 \times 1000 = 654 \times 1000 = 654000$

3. (a) $5 \times 97 \times 20 = 97 \times (5 \times 20) = 97 \times 100 = 9700$

(b) $2 \times 627 \times 50 = 627 \times (2 \times 50) = 627 \times 100 = 62700$

(c) $615 \times 50 \times 2 = 615 \times (50 \times 2) = 615 \times 100 = 61500$

(d) $8 \times 36 \times 125 = 36 \times (8 \times 125) = 36 \times 1000 = 36000$

(e) $729 \times 4 \times 25 = 729 \times (4 \times 25) = 729 \times 100 = 72900$

(f) $4 \times 72 \times 125 = 72 \times (4 \times 125) = 72 \times 500 = 72 \times 5 \times 100 = 360 \times 100 = 36000$

Exercise-4

1. (a)

$$\begin{array}{r} 819 \\ \times\ 208 \\ \hline 6552 \\ 0000 \\ +163800 \\ \hline 170352 \end{array}$$

(b)

$$\begin{array}{r} 555 \\ \times\ 145 \\ \hline 2775 \\ 22200 \\ +55500 \\ \hline 80475 \end{array}$$

(c)

$$\begin{array}{r} 3224 \\ \times\ 274 \\ \hline 12896 \\ 225680 \\ +\ 644800 \\ \hline 883376 \end{array}$$

(d)

$$\begin{array}{r} 6724 \\ \times\ 92 \\ \hline 13448 \\ +\ 605160 \\ \hline 618608 \end{array}$$

2. (a)

$$\begin{array}{r} 1732 \\ \times\ 48 \\ \hline 13856 \\ +\ 69280 \\ \hline 83136 \end{array}$$

(b)

$$\begin{array}{r} 2547 \\ \times\ 87 \\ \hline 17829 \\ +\ 203760 \\ \hline 221589 \end{array}$$

(c)

$$\begin{array}{r} 245 \\ \times\ 155 \\ \hline 1225 \\ 12250 \\ +\ 24500 \\ \hline 37975 \end{array}$$

(d)

$$\begin{array}{r} 679 \\ \times\ 234 \\ \hline 2716 \\ 20370 \\ +\ 135800 \\ \hline 158886 \end{array}$$

3. Cost of a chair = ₹ 485

∴ Total cost of 24 chairs = ₹ 485 × 24

= ₹ 11640

Thus, the total cost of 24 chairs is ₹ 11,640.

```
  485
×  24
 1940
+9700
 11640
```

4. Cost of one DVD player = ₹ 2485

∴ Total cost of 32 DVD players = ₹ 2485 × 32

= ₹ 79,520

Thus, the total cost of 32 DVD players is ₹ 79,520.

```
 2485
×  32
 4970
+74550
 79520
```

5. Weight of a box = 8485 g

∴ Total weight of 45 boxes = (8485 × 45) g

= 381825 g

Thus, the total weight of 45 boxes is 381825 g.

```
 8485
×  45
 42425
+339400
 381825
```

6. Monthly fee = ₹ 2550

Yearly fee = ₹ 2550 × 12 = ₹ 30,600

Thus, each student will pay ₹ 30,600 in a year.

```
 2550
×  12
 5100
+25500
 30600
```

7. Weight of one watermelon = 3458 g

∴ Total weight of 24 watermelons = (3458 × 24) g

= 82992 g

Thus, the weight of 24 watermelons is 82992 g.

```
 3458
×  24
 13832
+69160
 82992
```

8. 1 year = 365 days = 365 × 24 hours [∵ 1 day = 24 hours]

= 8760 hours

```
  365
×  24
 1460
+7300
 8760
```

Thus, there are 8760 hours in one year.

9. Weight of one football = 288 g

∴ Total weight of 175 footballs = (288 × 175) g

= 50400 g

Thus, the total weight of 175 footballs is 50400 g.

```
  288
×  175
 1440
20160
+28800
 50400
```

Logical Reasoning

(a)

		6	7
	×	1	9
	6	0	3
	6	7	0
1	2	7	3

(b)

		6	2	7
		×	2	4
	2	5	0	8
1	2	5	4	0
1	5	0	4	8

Exercise-5

1. 45 is rounded off to 50 (nearest tens) and 32 is rounded off to 30 (nearest tens).
   $50 \times 30 = 1500$
   Thus, the estimated product is 1500.
2. 645 is rounded off to 600 (nearest hundreds).
   $600 \times 5 = 3000$
   Thus, the estimated product is 3000.
3. 524 is rounded off to 500 (nearest hundreds) and 62 is rounded off to 60 (nearest tens). $500 \times 60 = 30000$
   Thus, the estimated product is 30000.
4. 169 is rounded off to 200 (nearest hundreds) and 53 is rounded off to 50 (nearest tens). $200 \times 50 = 10000$
   Thus, the estimated product is 10000.
5. 81 is rounded off to 80 (nearest tens) and 67 is rounded off to 70 (nearest tens). $80 \times 70 = 5600$
   Thus, the estimated product is 5600.

6. 786 is rounded off to 800 (nearest hundreds). $800 \times 6 = 4800$
   Thus, the estimated product is 4800.
7. 103 is rounded off to 100 (nearest hundreds) and 23 is rounded off to 20 (nearest tens). $100 \times 20 = 2000$
   Thus, the estimated product is 2000.
8. 528 is rounded off to 500 (nearest hundreds) and 69 is rounded off to 70 (nearest tens). $500 \times 70 = 35000$
   Thus, the estimated product is 35000.

Critical Thinking

There are 3 rooms in each flat.

Number of tiles required for each flat

$= 2 \times 81 + 1 \times 75 = 162 + 75 = 237$

Number of tiles required for 25 flats $= 237 \times 25 = 5925$

$$\begin{array}{r} 237 \\ \times\ 25 \\ \hline 1185 \\ +4740 \\ \hline 5925 \end{array}$$

Exercise-6

1. **(a)** 928 **(b)** 0 **(c)** 888 **(d)** 0

2. **(a)**

```
    65
5 ) 328
   -30
    28
   -25
     3
```

Q = 65, R = 3

Checking :
Divisor × Quotient + Remainder
= 5 × 65 + 3
= 325 + 3
= 328 = Dividend

(b)

```
    88
7 ) 617
   -56
    57
   -56
     1
```

Q = 88, R = 1

Checking :
Divisor × Quotient + Remainder
= 7 × 88 + 1
= 616 + 1
= 617 = Dividend

(c)

```
    49
6 ) 299
   -24
    59
   -54
     5
```

Q = 49, R = 5

Checking :
Divisor × Quotient + Remainder
= 6 × 49 + 5
= 294 + 5
= 299 = Dividend

(d)

```
    62
9 ) 565
   -54
    25
   -18
     7
```

Q = 62, R = 7

Checking :
Divisor × Quotient + Remainder
= 9 × 62 + 7
= 558 + 7
= 565 = Dividend

Exercise-7

1. On dividing a number by 10, the quotient is obtained by removing the ones digit from the number. The ones digit forms the remainder.

   (a) Q = 8, R = 9 **(b)** Q = 99, R = 8 **(c)** Q = 152, R = 4
   (d) Q = 108, R = 9 **(e)** Q = 5215, R = 4 **(f)** Q = 787, R = 8

2. On dividing a number by 100, the quotient is obtained by removing the tens and ones digits from the number. The number formed by the removed tens and ones digits is the remainder.

   (a) Q = 9, R = 57 **(b)** Q = 81, R = 72 **(c)** Q = 67, R = 88
   (d) Q = 54, R = 56 **(e)** Q = 999, R = 99 **(f)** Q = 423, R = 41

3. On dividing a number by 1000, the quotient is obtained by removing the hundreds, tens and ones digits from the number. The number formed by the removed hundreds, tens and ones digits is the remainder.

   (a) Q = 4, R = 723 **(b)** Q = 8, R = 927 **(c)** Q = 72, R = 873
   (d) Q = 67, R = 171 **(e)** Q = 38, R = 287 **(f)** Q = 79, R = 202

Exercise-8

1. (a)

$$
\begin{array}{r|l}
 & 531 \\ \hline
9 & 4787 \\
 & -45 \\ \hline
 & 28 \\
 & -27 \\ \hline
 & 17 \\
 & -9 \\ \hline
 & 8
\end{array}
$$

Q = 531, R = 8

Checking :

Divisor × Quotient + Remainder

= 9 × 531 + 8

= 4779 + 8 = 4787 = Dividend

$$
\begin{array}{r}
\overset{2}{5}\ 3\ 1 \\
\times\ 9 \\ \hline
4\ 7\ 7\ 9
\end{array}
$$

(b)

$$
\begin{array}{r|l}
 & 2310 \\ \hline
6 & 13865 \\
 & -12 \\ \hline
 & 18 \\
 & -18 \\ \hline
 & 06 \\
 & -6 \\ \hline
 & 05 \\
 & -0 \\ \hline
 & 5
\end{array}
$$

Q = 2310, R = 5

Checking :

Divisor × Quotient + Remainder

= 6 × 2310 + 5

= 13860 + 5 = 13865 = Dividend

$$
\begin{array}{r}
\overset{1}{2}\ 3\ 1\ 0 \\
\times\ 6 \\ \hline
1\ 3\ 8\ 6\ 0
\end{array}
$$

(c)

$$
\begin{array}{r|l}
 & 29 \\ \hline
12 & 348 \\
 & -24 \\ \hline
 & 108 \\
 & -108 \\ \hline
 & 0
\end{array}
$$

Q = 29, R = 0

Checking :

Divisor × Quotient + Remainder

= 12 × 29 + 0 = 348

= Dividend

$$
\begin{array}{r}
2\ 9 \\
\times\ 1\ 2 \\ \hline
5\ 8 \\
+\ 2\ 9\ 0 \\ \hline
3\ 4\ 8
\end{array}
$$

(d)

$$
\begin{array}{r|l}
 & 50 \\ \hline
15 & 759 \\
 & -75 \\ \hline
 & 09 \\
 & -0 \\ \hline
 & 9
\end{array}
$$

Q = 50, R = 9

Checking :

Divisor × Quotient + Remainder

= 15 × 50 + 9 = 750 + 9

= 759 = Dividend

$$
\begin{array}{r}
5\ 0 \\
\times\ 1\ 5 \\ \hline
2\ 5\ 0 \\
+\ 5\ 0\ 0 \\ \hline
7\ 5\ 0
\end{array}
$$

(e)

$$
\begin{array}{r|l}
 & 273 \\ \hline
34 & 9289 \\
 & -68 \\ \hline
 & 248 \\
 & -238 \\ \hline
 & 109 \\
 & -102 \\ \hline
 & 7
\end{array}
$$

Q = 273, R = 7

Checking :

Divisor × Quotient + Remainder

= 34 × 273 + 7 = 9282 + 7

= 9289 = Dividend

$$
\begin{array}{r}
2\ 7\ 3 \\
\times\ 3\ 4 \\ \hline
1\ 0\ 9\ 2 \\
+\ 8\ 1\ 9\ 0 \\ \hline
9\ 2\ 8\ 2
\end{array}
$$

(f)

$$\begin{array}{r} 246 \\ 36\overline{)\,8888} \\ -72 \\ \hline 168 \\ -144 \\ \hline 248 \\ -216 \\ \hline 32 \end{array}$$

Q = 246, R = 32

Checking :

Divisor × Quotient + Remainder
= 36 × 246 + 32 = 8856 + 32
= 8888 = Dividend

$$\begin{array}{r} 246 \\ \times\ 36 \\ \hline 1476 \\ +7380 \\ \hline 8856 \end{array}$$

(g)

$$\begin{array}{r} 188 \\ 42\overline{)\,7896} \\ -42 \\ \hline 369 \\ -336 \\ \hline 336 \\ -336 \\ \hline 0 \end{array}$$

Q = 188, R = 0

Checking :

Divisor × Quotient + Remainder
= 42 × 188 + 0 = 7896 = Dividend

$$\begin{array}{r} 188 \\ \times\ 42 \\ \hline 376 \\ +7520 \\ \hline 7896 \end{array}$$

(h)

$$\begin{array}{r} 1754 \\ 38\overline{)\,66666} \\ -38 \\ \hline 286 \\ -266 \\ \hline 206 \\ -190 \\ \hline 166 \\ -152 \\ \hline 14 \end{array}$$

Q = 1754, R = 14

Checking :

Divisor × Quotient + Remainder
= 38 × 1754 + 14 = 66652 + 14
= 66666 = Dividend

$$\begin{array}{r} 1754 \\ \times\ 38 \\ \hline 14032 \\ +52620 \\ \hline 66652 \end{array}$$

2. Other number = 4560 ÷ 15
= 304

$$\begin{array}{r} 304 \\ 15\overline{)\,4560} \\ -45 \\ \hline 06 \\ -\ 0 \\ \hline 60 \\ -60 \\ \hline 0 \end{array}$$

Thus, the other number is 304.

3. Number of balls in each box = 5255 ÷ 34
On dividing 5255 by 34, we get 154 as the quotient and 19 as the remainder.

$$\begin{array}{r} 154 \\ 34\overline{)\,5255} \\ -34 \\ \hline 185 \\ -170 \\ \hline 155 \\ -136 \\ \hline 19 \end{array}$$

Thus, 154 balls will be filled in each box and 19 balls will be left out.

5. Here, Divisor = 25, Quotient = 171, Remainder = 10

$\therefore$ Dividend = Divisor × Quotient + Remainder

= 25 × 171 + 10 = 4275 + 10 = 4285

So, the number is 4285.

$$\begin{array}{r} 171 \\ \times 25 \\ \hline 855 \\ +3420 \\ \hline 4275 \\ \hline \end{array}$$

Critical Thinking

The greatest 5-digit number is 99999.

99999 ÷ 14 gives 7142 as the quotient and 11 as the remainder.

Now, 99999 – 11 = 99988, which is exactly divisible by 14.

So, the greatest 5-digit number exactly divisible by 14 is 99988.

$$\begin{array}{r|l} & 7142 \\ \hline 14 & 99999 \\ & -98 \\ \hline & 19 \\ & -14 \\ \hline & 59 \\ & -56 \\ \hline & 39 \\ & -28 \\ \hline & 11 \end{array}$$

Exercise-9

1. 134 is rounded off to 100 (nearest hundreds) and 22 is rounded off to 20 (nearest tens).

   100 ÷ 20 = 5. So, the quotient is about 5.

2. 179 is rounded off to 200 (nearest hundreds) and 18 is rounded off to 20 (nearest tens).

   200 ÷ 20 = 10. So, the quotient is about 10.

3. 393 is rounded off to 400 (nearest hundreds) and 17 is rounded off to 20 (nearest tens).

   400 ÷ 20 = 20. So, the quotient is about 20.

4. 201 is rounded off to 200 (nearest hundreds) and 47 is rounded off to 50 (nearest tens).

   200 ÷ 50 = 4. So, the quotient is about 4.

5. 198 is rounded off to 200 (nearest hundreds) and 9 is rounded off to 10 (nearest tens).

   200 ÷ 10 = 20. So, the quotient is about 20.

6. 438 is rounded off to 400 (nearest hundreds) and 24 is rounded off to 20 (nearest tens).

   400 ÷ 20 = 20. So, the quotient is about 20.

7. 579 is rounded off to 600 (nearest hundreds) and 35 is rounded off to 40 (nearest tens).

   600 ÷ 40 = 15. So, the quotient is about 15.

8. 810 is rounded off to 800 (nearest hundreds) and 52 is rounded off to 50 (nearest tens).

   800 ÷ 50 = 16. So, the quotient is about 16.

Exercise-10

1. **(a)** (iv) Length of the wall painted in 7 days = 28 m

Length of the wall painted in 1 day = 28 m ÷ 7 = 4 m

Length of the wall painted in 4 days = 4 m × 4 = 16 m

Thus, Deepak painted 16 m wall in the first 4 days.

(b) (ii) The cost of 12 bananas = ₹ 48

∴ The cost of 1 banana = ₹ 48 ÷ 12 = ₹ 4

∴ The cost of 8 bananas = ₹ 4 × 8 = ₹ 32

(c) (iii) The weight of one box of apples = 5 kg

The weight of 8 boxes of apples = 8 × 5 kg = 40 kg

(d) (ii) The cost of 10 books = ₹ 900

∴ The cost of 1 book = ₹ 900 ÷ 10 = ₹ 90

∴ The cost of 18 books = ₹ 90 × 18 = ₹ 1620

2. Time taken to fill 11 buckets of water = 77 min

Time taken to fill 1 bucket of water = 77 minutes ÷ 11 = 7 minutes

Time taken to fill 7 buckets = 7 × 7 minutes = 49 minutes

So, it will take 49 minutes to fill the buckets.

3. Number of people carried by 4 boats = 64

Number of people carried by 1 boat = 64 ÷ 4 = 16

Number of people carried by 9 boats = 16 × 9 = 144

Thus, 144 people can be carried in 9 boats.

4. Cost of 8 television sets = ₹ 68,000

∴ Cost of 1 television set = ₹ 68,000 ÷ 8 = ₹ 8500

∴ Cost of 18 television sets = ₹ 8500 × 18 = ₹ 1,53,000

Thus, the cost of 18 television sets is ₹ 1,53,000.

5. The weight of 12 apples = 3060 g

∴ The weight of 1 apple = 3060 g ÷ 12 = 255 g

∴ The weight of 20 apples = 255 g × 20 = 5100 g

Thus, the weight of 20 apples will be 5100 g.