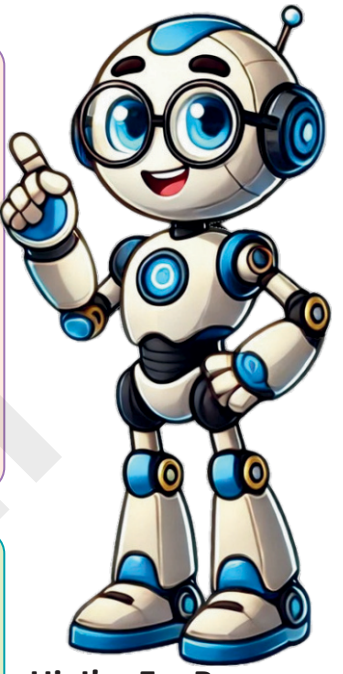
5 Multiplication

We'll cover the following key points:

→Multiplication Table form 1 to 10
→Multiplication Table form 11 to 20
→Multiplication By 1-digit Number
→Properties of Multiplication
→Multiplication by 10, 20, 30, ..., 90
→Multiplying by 2-Digit Number
→Problems on Multiplication



Hi, I'm EeeBee

Do you Remember fundamental concept in previous class.
In class 2nd we learnt

→Multiplication Table
→Multiplication by 1 Digit Number without Carrying
→Multiplication by 1 Digit Number with Carrying
→Word Problem Based On Multiplication

Still curious? Talk to me by scanning the QR code.

Learning Outcomes

By the end of this chapter, students will be able to:

- Understand the concept of multiplication as repeated addition.
- Recognize and use the multiplication symbol (×).
- Memorize and recall multiplication tables up to 10.
- Solve simple multiplication problems involving single-digit and two-digit numbers.
- Apply the commutative property of multiplication (e.g., $3 \times 4 = 4 \times 3$).
- Understand and apply the zero property (any number multiplied by 0 equals 0) and the identity property (any number multiplied by 1 remains the same).
- Represent multiplication using arrays, groups, and number lines.
- Solve word problems involving multiplication in real-life scenarios.
- Recognize patterns and relationships in multiplication tables.

Here is a giant multiplication wheel. Complete the wheel by multiplying the numbers in the inner segment and writing the product on the outer segment.

Multiplication of numbers is impossible without learning multiplication tables.
Multiplication tables are very helpful in division and multiplication.

Multiplication Tables from 1 to 10.

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Now, let us learn multiplication tables from11 to 20.

Multiplication Table of 11

1 × 11 = 11	→ 1 time 11	= 11
2 × 11 = 22	→ 2 times 11	= 11 + 11
3 × 11 = 33	→ 3 times 11	= 11 + 11 + 11
4 × 11 = 44	→ 4 times 11	= 11 + 11 + 11 + 11
5 × 11 = 55	→ 5 times 11	= 11 + 11 + 11 + 11 + 11
6 × 11 = 66	→ 6 times 11	= 11 + 11 + 11 + 11 + 11 + 11
7 × 11 = 77	→ 7 times 11	= 11 + 11 + 11 + 11 + 11 + 11 + 11
8 × 11 = 88	→ 8 times 11	= 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11
9 × 11 = 99	→ 9 times 11	= 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11
10 × 11 = 110	→ 10 times 11	= 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 + 11

Multiplication Table of 12

1 × 12 = 12	→ 1 time 12	= 12
2 × 12 = 24	→ 2 times 12	= 12 + 12
3 × 12 = 36	→ 3 times 12	= 12 + 12 + 12
4 × 12 = 48	→ 4 times 12	= 12 + 12 + 12 + 12
5 × 12 = 60	→ 5 times 12	= 12 + 12 + 12 + 12 + 12
6 × 12 = 72	→ 6 times 12	= 12 + 12 + 12 + 12 + 12 + 12
7 × 12 = 84	→ 7 times 12	= 12 + 12 + 12 + 12 + 12 + 12 + 12
8 × 12 = 96	→ 8 times 12	= 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12
9 × 12 = 108	→ 9 times 12	= 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12
10 × 12 = 120	→ 10 times 12	= 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 12

Multiplication Table of 13

1 × 13 = 13	→ 1 time 13	= 13
2 × 13 = 26	→ 2 times 13	= 13 + 13
3 × 13 = 39	→ 3 times 13	= 13 + 13 + 13
4 × 13 = 52	→ 4 times 13	= 13 + 13 + 13 + 13
5 × 13 = 65	→ 5 times 13	= 13 + 13 + 13 + 13 + 13
6 × 13 = 78	→ 6 times 13	= 13 + 13 + 13 + 13 + 13 + 13
7 × 13 = 91	→ 7 times 13	= 13 + 13 + 13 + 13 + 13 + 13 + 13
8 × 13 = 104	→ 8 times 13	= 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13
9 × 13 = 117	→ 9 times 13	= 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13
10 × 13 = 130	→ 10 times 13	= 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13

Multiplication Table of 14

1 × 14 = 14	→	1 time 14 = 14
2 × 14 = 28	→	2 times 14 = 14 + 14
3 × 14 = 42	→	3 times 14 = 14 + 14 + 14
4 × 14 = 56	→	4 times 14 = 14 + 14 + 14 + 14
5 × 14 = 70	→	5 times 14 = 14 + 14 + 14 + 14 + 14
6 × 14 = 84	→	6 times 14 = 14 + 14 + 14 + 14 + 14 + 14
7 × 14 = 98	→	7 times 14 = 14 + 14 + 14 + 14 + 14 + 14 + 14
8 × 14 = 112	→	8 times 14 = 14 + 14 + 14 + 14 + 14 + 14 + 14 + 14
9 × 14 = 126	→	9 times 14 = 14 + 14 + 14 + 14 + 14 + 14 + 14 + 14 + 14
10 × 14 = 140	→	10 times 14 = 14 + 14 + 14 + 14 + 14 + 14 + 14 + 14 + 14 + 14

Multiplication Table of 15

1 × 15 = 15	→	1 time 15 = 15
2 × 15 = 30	→	2 times 15 = 15 + 15
3 × 15 = 45	→	3 times 15 = 15 + 15 + 15
4 × 15 = 60	→	4 times 15 = 15 + 15 + 15 + 15
5 × 15 = 75	→	5 times 15 = 15 + 15 + 15 + 15 + 15
6 × 15 = 90	→	6 times 15 = 15 + 15 + 15 + 15 + 15 + 15
7 × 15 = 105	→	7 times 15 = 15 + 15 + 15 + 15 + 15 + 15 + 15
8 × 15 = 120	→	8 times 15 = 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15
9 × 15 = 135	→	9 times 15 = 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15
10 × 15 = 150	→	10 times 15 = 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15

Multiplication Table of 16

1 × 16 = 16	→	1 time 16 = 16
2 × 16 = 32	→	2 times 16 = 16 + 16
3 × 16 = 48	→	3 times 16 = 16 + 16 + 16
4 × 16 = 64	→	4 times 16 = 16 + 16 + 16 + 16
5 × 16 = 80	→	5 times 16 = 16 + 16 + 16 + 16 + 16
6 × 16 = 96	→	6 times 16 = 16 + 16 + 16 + 16 + 16 + 16
7 × 16 = 112	→	7 times 16 = 16 + 16 + 16 + 16 + 16 + 16 + 16
8 × 16 = 128	→	8 times 16 = 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16
9 × 16 = 144	→	9 times 16 = 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16
10 × 16 = 160	→	10 times 16 = 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16

Multiplication Table of 17

1 × 17 = 17	→	1 time 17 = 17
2 × 17 = 34	→	2 times 17 = 17 + 17
3 × 17 = 51	→	3 times 17 = 17 + 17 + 17
4 × 17 = 68	→	4 times 17 = 17 + 17 + 17 + 17
5 × 17 = 85	→	5 times 17 = 17 + 17 + 17 + 17 + 17
6 × 17 = 102	→	6 times 17 = 17 + 17 + 17 + 17 + 17 + 17
7 × 17 = 119	→	7 times 17 = 17 + 17 + 17 + 17 + 17 + 17 + 17
8 × 17 = 136	→	8 times 17 = 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17
9 × 17 = 153	→	9 times 17 = 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17
10 × 17 = 170	→	10 times 17 = 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17 + 17

Multiplication Table of 18

1 × 18 = 18	→	1 time 18 = 18
2 × 18 = 36	→	2 times 18 = 18 + 18
3 × 18 = 54	→	3 times 18 = 18 + 18 + 18
4 × 18 = 72	→	4 times 18 = 18 + 18 + 18 + 18
5 × 18 = 90	→	5 times 18 = 18 + 18 + 18 + 18 + 18
6 × 18 = 108	→	6 times 18 = 18 + 18 + 18 + 18 + 18 + 18
7 × 18 = 126	→	7 times 18 = 18 + 18 + 18 + 18 + 18 + 18 + 18
8 × 18 = 144	→	8 times 18 = 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18
9 × 18 = 162	→	9 times 18 = 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18
10 × 18 = 180	→	10 times 18 = 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18

Multiplication Table of 19

1 × 19 = 19	→	1 time 19 = 19
2 × 19 = 38	→	2 times 19 = 19 + 19
3 × 19 = 57	→	3 times 19 = 19 + 19 + 19
4 × 19 = 76	→	4 times 19 = 19 + 19 + 19 + 19
5 × 19 = 95	→	5 times 19 = 19 + 19 + 19 + 19 + 19
6 × 19 = 114	→	6 times 19 = 19 + 19 + 19 + 19 + 19 + 19
7 × 19 = 133	→	7 times 19 = 19 + 19 + 19 + 19 + 19 + 19 + 19
8 × 19 = 152	→	8 times 19 = 19 + 19 + 19 + 19 + 19 + 19 + 19 + 19
9 × 19 = 171	→	9 times 19 = 19 + 19 + 19 + 19 + 19 + 19 + 19 + 19 + 19
10 × 19 = 190	→	10 times 19 = 19 + 19 + 19 + 19 + 19 + 19 + 19 + 19 + 19 + 19

Multiplication Tables of 20

1 × 20 = 20	→	1 time 20 = 20
2 × 20 = 40	→	2 times 20 = 20 + 20
3 × 20 = 60	→	3 times 20 = 20 + 20 + 20
4 × 20 = 80	→	4 times 20 = 20 + 20 + 20 + 20
5 × 20 = 100	→	5 times 20 = 20 + 20 + 20 + 20 + 20
6 × 20 = 120	→	6 times 20 = 20 + 20 + 20 + 20 + 20 + 20
7 × 20 = 140	→	7 times 20 = 20 + 20 + 20 + 20 + 20 + 20 + 20
8 × 20 = 160	→	8 times 20 = 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20
9 × 20 = 180	→	9 times 20 = 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20
10 × 20 = 200	→	10 times 20 = 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20

Multiplication Tables from 11 to 20

X	1	2	3	4	5	6	7	8	9	10
11	11	22	33	44	55	66	77	88	99	110
12	12	24	36	48	60	72	84	96	108	120
13	13	26	39	52	65	78	91	104	117	130
14	14	28	42	56	70	84	98	112	126	140
15	15	30	45	60	75	90	105	120	135	150
16	16	32	48	64	80	96	112	128	144	160
17	17	34	51	68	85	102	119	136	153	170
18	18	36	54	72	90	108	126	144	162	180
19	19	38	57	76	95	114	133	152	171	190
20	20	40	60	80	100	120	140	160	180	200

Multiplication Table of 12

	Table of 10		Table of 2		Table of 12
1 time	10	+	2	=	12
2 times	20	+	4	=	24
3 times	30	+	6	=	36
4 times	40	+	8	=	48
5 times	50	+	10	=	60
6 times	60	+	12	=	72
7 times	70	+	14	=	84
8 times	80	+	16	=	96
9 times	90	+	18	=	108
10 times	100	+	20	=	120

Exercise 5.1

Knowledge Application

1. Complete the following:

(a) 6 times 16 = 6 times 10 + 6 times _____

(b) 7 times 14 = 70 + 7 times _____

(c) 3 times 12 = 30 + _____

(d) 5 times 15 = 50 + _____

(e) 8 times 18 = 80 + _____

2. Find the answers:

(a) 8 times 5 = ☐

(b) 9 times 15 = ☐

(c) 6 times 19 = ☐

(d) 6 times 18 = ☐

(e) 2 times 11 = ☐

(f) 5 times 14 = ☐

(g) 9 times 12 = ☐

(h) 5 times 17 = ☐

(i) 9 times 13 = ☐

(j) 7 times 19 = ☐

3. Fill in the blanks:

(a)	5	times	12	=		(b)		times	11	=	88
(c)		times	9	=	162	(d)	7	times	19	=	
(e)		times	6	=	84	(f)	5	times		=	100
(g)	9	times		=	135	(h)	4	times		=	52
(i)		times	3	=	57	(j)		times	16	=	144

4. Fill in the box to get the correct answer:

(a)	11 × 8 =		(b)	18 × 9 =		(c)	19 × 4 =	
(d)	14 × 7 =		(e)	20 × 6 =		(f)	15 × 2 =	
(g)	17 × 5 =		(h)	17 × 4 =		(i)	18 × 3 =	
(j)	16 × 7 =		(k)	15 × 8 =		(l)	12 × 8 =	
(m)	19 × 8 =		(n)	10 × 9 =		(o)	13 × 8 =	

Multiplication By 1-digit Number

Example 1 : Multiply 3124 by 2.

Solution :

Th	H	T	O
3	1	2	4
		×	2
6	2	4	8

Steps:

2 × 4 ones = 8 ones

2 × 2 tens = 4 tens

2 × 1 hundred = 2 hundreds

2 × 3 thousands = 6 thousands

Hence, 3124 × 2 = **6248**

Example 2 : Multiply 568 by 4.

Solution :

Th	H	T	O
	5	6	8
		×	4
2	2	7	2

Steps:

4 × 8 ones = 32 ones
= 3 tens + 2 ones

4 × 6 tens = 24 tens + 3 tens = 27 tens
= 2 hundreds + **7** tens

4 × 5 hundreds = 20 hundreds + 2 hundreds
= **22** hundreds
= 2 thousands + 2 hundreds

2 5	3 6 ×	8 4
22	2 7	3 2
4 × 5 = 20 20 + 2 = 22	4 × 6 = 24 24 + 3 = 27	4 × 8 = 32

Hence, 568 × 4 = 2272.

Exercise 5.2

Knowledge Application

1. Multiply:

(a) 141 × 4 (b) 123 × 6 (c) 112 × 5 (d) 316 × 5

(e) 232 × 3 (f) 528 × 3 (g) 526 × 7 (h) 1518 × 3

(i) 923 × 4 (j) 269 × 7 (k) 915 × 2 (l) 1256 × 7

2. Match the following:

(a)	2165×4	(i)	4146
(b)	735×7	(ii)	8660
(c)	1382×3	(iii)	8826
(d)	1489×2	(iv)	6760
(e)	1352×5	(v)	5145
(f)	1471×6	(vi)	2978

3. Write T for true and F for false:

(a) 239×2 is equal to 478. ☐

(b) $45 \times 8 \times 3 = 1080$. ☐

(c) 123×3 is equal to 396. ☐

(d) $1 \times 5 \times 4 \times 8 \times 3$ is equal to 485. ☐

(e) $45 \times 3 \times 0 \times 6$ is equal to 0. ☐

(f) $7 \times 9 \times 5 \times 1 \times 2 = 710$. ☐

Properties of Multiplication

Example 3 : Multiply : (i) 7×5 (ii) 5×7

Solution :

(i)
$$\begin{array}{r} 7 \\ \times\ 5 \\ \hline 35 \\ \hline \end{array}$$

(ii)
$$\begin{array}{r} 5 \\ \times\ 7 \\ \hline 35 \\ \hline \end{array}$$

Above two products are same. Now, we can say that **if two numbers multiply by either order, the product remains same.**

Example 4 : Find the product of $15 \times 4 \times 3$.

Solution : We can multiply in the following two ways.

(i) $15 \times 4 \times 3$

$= 60 \times 3 = 180$

(ii) $15 \times 3 \times 4$

$= 45 \times 4 = 180$

Now, we can say that **the product of three numbers remain same, even if the groupings of the numbers are changed.**

Example 5 : Multiply 395, 693 and 850 by 1.

Solution : $395 \times 1 = 395$; $693 \times 1 = 693$; $850 \times 1 = 850$

When we multiply any number by 1, there is no change in the product.

Now, we can say that the product of a number and 1 is the number itself.

Example 6 : Multiply 193, 500 and 288 by 0.

Solution : $193 \times 0 = 0$; $500 \times 0 = 0$; $288 \times 0 = 0$

Now, **we can say that the product of a number and zero is always zero.**

Exercise 5.3

Knowledge Application

1. Fill the following boxes using multiplication properties:

a. $156 \times \square = 56 \times 156$

b. $406 \times 34 = \square \times 34$

c. $88 \times 40 = \square \times 88$

d. $914 \times 10 = 10 \times \square$

e. $36 \times 56 = 56 \times \square$

f. $65 \times 24 = 24 \times \square$

g. $68 \times \square = 37 \times \square$

h. $25 \times \square = 28 \times \square$

2. Match the column:

(a)	$12 \times 4 \times 3$	(i)	9387
(b)	$25 \times 8 \times 9 \times 6$	(ii)	$4 \times 62 \times 39 \times 5$
(c)	9387×1	(iii)	144
(d)	$62 \times 39 \times 4 \times 5$	(iv)	$8 \times 9 \times 25 \times 6$

Take a Task

Watch Remedial

Multiplication by 10, 20, 30, ..., 90

Example 7 : Multiply (i) 8 by 10 (ii) 17 by 30

Solution :

(i) $8 \times 10 = 8 \times 1$ ten
$= 8$ tens
$= 80$

(ii) $17 \times 30 = 17 \times 3$ tens
$= 51$ tens
$= 510$

Second Method

We know that $30 = 3 \times 10$

Therefore, $17 \times 30 = 17 \times 3 \times 10 = 51 \times 10 = 510$

We observe in the second method of the previous example that when we multiply a 1-digit or 2-digit number by 10, 20, 30, ...90, we multiply number by 1, 2, 3, ...9 respectively and insert one zero to the right of the product.

Multiplying by 100, 200, ..., 900

Example 8 : Multiply (i) 19 by 200 (ii) 27 by 300.

Solution :

First Method

(i) $19 \times 200 = 19 \times 2$ hundreds
$= 38$ hundreds
$= 3800$

(ii) $27 \times 300 = 27 \times 3$ hundreds
$= 81$ hundreds
$= 8100$

Second Method

(i) $19 \times 200 = 19 \times 2 \times 100$
$= 38 \times 100$
$= 3800$

(ii) $27 \times 300 = 27 \times 3 \times 100$
$= 27 \times 3 \times 100$
$= 81 \times 100 = 8100$

We observe in the second method of the above example that to multiply a number by 100, 200, 300 ....., 900, we multiply the given number by 1, 2, 3 ..... 9 respectively and insert two zeroes on the right of product.

Exercise 5.4

Knowledge Application

1. Find the product:

(a) 9×10	(b) 52×10	(c) 48×10	(d) 32×20
(e) 29×20	(f) 18×30	(g) 19×80	(h) 35×40
(i) 12×50	(j) 21×40	(k) 24×50	(l) 16×30
(m) 7×200	(n) 11×400	(o) 9×600	(p) 13×100
(q) 24×200	(r) 28×300	(s) 15×300	(t) 6×600

2. Fill in the blanks:

(a) $9 \times 200 = 9 \times 2 \times$ _____ = _____

(b) $25 \times 400 = 25 \times 4 \times$ _____ = _____

(c) 28×3 tens $= 28 \times 3 \times$ _____ = _____

(d) 97×5 hundreds $= 97 \times$ _____ $\times$ _____

(e) $163 \times 800 = 163 \times 8 \times$ _____ = _____

(f) 69×6 hundred $= 69 \times$ _____ = _____

Multiplying by 2-Digit Number

Example 9 : Multiply 24 by 34.

Solution : We know that $34 = 30 + 4$

Now, $24 \times 34 = 24 \times (30 + 4)$

$= (24 \times 30) + (24 \times 4)$

$= 720 + 96 = \mathbf{816}$

It can also be arranged as follows:

$$\begin{array}{r} 24 \\ \times\ 34 \\ \hline 96 \\ +\ 720 \\ \hline 816 \end{array}$$

$24 \times 4 = 96$

$24 \times 30 = 720$

Thus, $24 \times 34 = \mathbf{816}$.

Example 10 : Multiply 27 by 43.

Solution :

$$\begin{array}{r} 27 \\ \times\ 43 \\ \hline 81 \\ +\ 1080 \\ \hline 1161 \end{array}$$

27×3

27×40

27×43

Steps

We know that $43 = 40 + 3$.

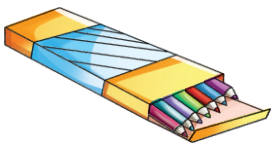
First, multiply 27 by 3.

Then, multiply 27 by 40.

To multiply 27 by 40, put 0 in the ones column and then multiply by 4.

Problems on Multiplication

Example 11 : A pencil box has 16 pencils. How many pencils are there in such 108 boxes?



Solution : Number of pencils in 1 box = 16

Number of pencils in 108 boxes = 16×108 or 108×16

108		
× 16		
648	←	108 × 6
+ 1080	←	108 × 10
1728	←	108 × 16

Take a Task

Watch Remedial

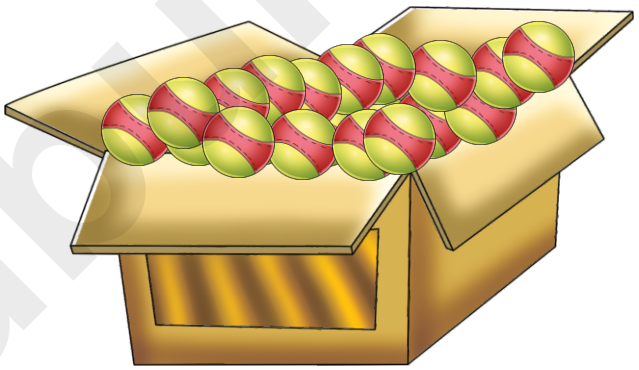
Thus, 108 boxes have 1728 pencils.

Example 12: A box contains 215 balls. How many balls are contained in 21 such boxes?

Solution : Number of balls in 1 box = 215

Number of balls in 21 boxes = 215 × 21

215		
× 21		
215	←	215 × 1
4300	←	215 × 20
4515	←	215 × 21



Thus, 21 boxes contain **4515** balls.

Exercise 5.5

Knowledge Application

1. Multiply:

(a) 52 × 35 (b) 41 × 43 (c) 14 × 35 (d) 75 × 12

(e) 43 × 54 (f) 42 × 24 (g) 29 × 44 (h) 22 × 18

(i) 39 × 15 (j) 19 × 74 (k) 24 × 33 (l) 69 × 87

(m) 36 × 64 (n) 54 × 92 (o) 65 × 35

2. The price of an article is ₹ 312. Find the price of 37 such articles.

3. There are 62 beads in a chain. How many beads will be required to prepare 28 such chains?

4. If the cost of one table is ₹1572, find the cost of 9 such tables.

5. There are 36 trees in a row. How many trees are there in 96 rows?

6. A sofa-set costs ₹3225. Find the cost of 3 such sofa-sets.

7. Is it correct, 156 × (235 × 50) = (156 × 235) × 50?

8. Is 75 × 40 the same as 100 × 30?

9. Is 65 × 30 = 195 × 100?

Puzzle

Conceptual Learning

Fill in the blanks:

(a) 568×15 = $500 + 60 + 8 \times 15 = 500 \times 15 + 60 \times 15 + 8 \times 15$

= $7500 + 900 + 120 = 8520$

(b) 358×16 = $\square + \square + 8 \times 16 = \square \times 16 + \square \times 16 + \square \times 16$

= $\square + \square + \square = 5728$

(c) 442×19 = $\square + 40 + \square \times 19 = \square \times 19 + \square \times 19 + \square \times 19$

= $\square + \square + \square = \square$

(d) 392×18 = $300 + \square + \square \times 18 = \square \times 18 + \square \times 18 + \square \times 18$

= $\square + \square + \square = \square$

Think Tank

Gap Analyzer™
Take a Test

1. Tick (✓) the correct answer:

(a) $135 \times 8 =$ _____ .

(i) 8010 ☐ (ii) 1080 ☐ (iii) 1180 ☐

(b) _____ $\times 6 = 60$

(i) 10 ☐ (ii) 11 ☐ (iii) 12 ☐

(c) $9 \times (6 + 7) = (9 \times 6) + (9x$ _____ $)$

(i) 6 ☐ (ii) 7 ☐ (iii) 8 ☐

(d) A train has 24 coaches with 127 seats in each cosch. How many people can travel in it?

(i) 4048 ☐ (ii) 4830 ☐ (iii) 3048 ☐

2. Fill in the blanks:

(a) $5 \times$ _____ $= 45$

(b) $3 \times$ _____ $= 3 \times 9$

(c) $7 \times (8 \times 9) = (7 \times 8) \times$ _____

(d) $6 \times (12 \times 8) = (6 \times 8) \times$ _____

(e) $28 \times 45 \times 3 = 3 \times 28 \times$ _____

(f) $63 \times 52 \times = 52 \times$ _____

(g) $935 \times$ _____ $= 935$

(h) _____ $\times 645 = 0$

3. Match the following:

(a)	8×7 tens	(i)	240
(b)	6 ones $\times$ 4 tens	(ii)	528
(c)	103×32	(iii)	560
(d)	4×132	(iv)	3296

Custom Learning Path
Scan to Create Your Own Learning Path

Puzzle

Conceptual Learning

Solve the puzzle:

					5	
					×	
7	×	9	=			
		×			=	
		7				
	×	2	=	4		
=		3	×	1	=	

Mental Math

Critical Thinking

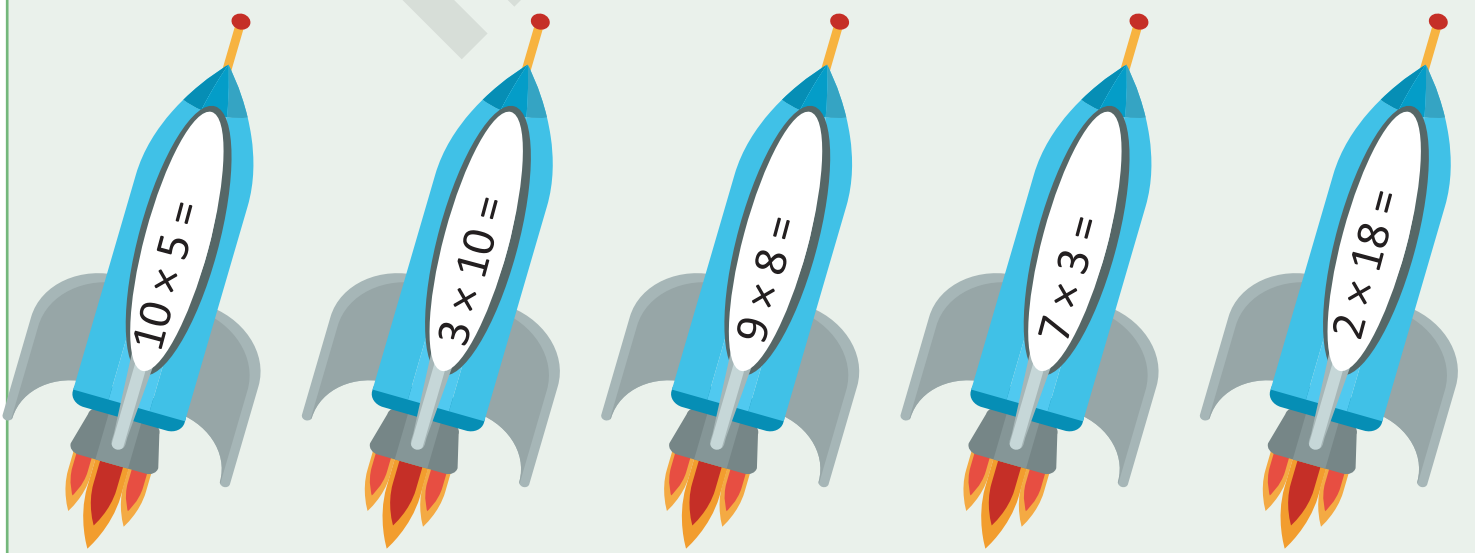
1. What is the product of zero and any number? _____ .
2. What is the product of one and any number? _____ .
3. If 8 rooms have 126 ants each, how many ants are there in all?

   _____ .

Fun Time Activity

Problem Solving

Write the answer in the rocket's trail.



Maths Lab Activity

Collaboration

Learning objective: To find the product of a 2-digit number using criss-cross line arrangement.

Materials required : Straws or matchsticks or the students can draw lines in different colours.

Procedure:

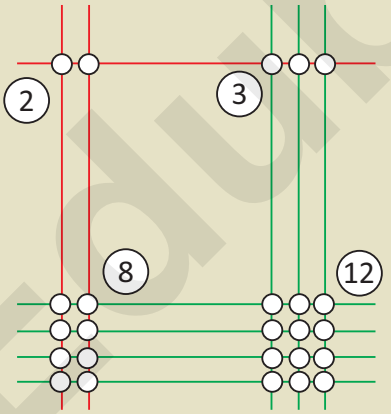
Use green lines for ones and red lines for tens. To find the product say, 14×23, do as follows:

1. 14 can be represented by horizontal lines as 1 red line and 4 green lines.
2. 23 can be represented by vertical lines as 2 red lines and 3 green lines.
3. Count the point of intersection of the lines at the 4 corners. In this case they are 2, 3, 8, and 12. Therefore, $14 \times 23 = 200 + 30 + 80 + 12 = 322$

Red × Red = 100

Red × Green = 10

Green × Green = 1



2 represents, $2 \times 100 = 200$

3 represents, $3 \times 10 = 30$

8 represents, $8 \times 10 = 80$

12 represents, $12 \times 1 = 12$

Verification $14 = 10 + 4$, $23 = 20 + 3$

Draw a multiplication table as follows:

	10	4	Total
20	200	80	280
3	30	12	42
		Total	322

HOTS

Critical Thinking

How many pieces do you form with 6 cuts of a pizza? All cuts go through the centre.