August Date __/__/____

6 - MULTIPLICATION

Exercise 6(A)

Multiply the following in your ...

(a) 64×45

Th	H	T	O
		①	
		②	
		6	4
		× 4	5
		3	2 0
2	5	6	+
2	8	8	0

(b) 58×72

Th	H	T	O
		⑤	
		①	
		5	8
		× 7	2
		1	1 6
4	0	6	+
4	1	7	6

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(c) 49 × 36

Th	H	T	O
		② ⑤ 4	9
	×	3	6
	① 2	9	4
1	4	7	+
1	, 7	6	4

(d) 82 × 27

Th	H	T	O
		①	
	8	8	2
	×	2	7
	① 5	7	4
①			
1	6	4	+
2,	2	1	4

(e) 94 × 89

Th	H	③ T	O
		③ 9	4
	×	8	9
①	8	4	6
7	5	2	+
8	3	6	6

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(f) 634 × 92

T-Th	Th	H	T	O
		③	③	
		6	3	4
		×	9	2
		①		
		1	2	6	8
	5	7	0	6	+
	5	8,	3	2	8

(g) 754 × 58

T-Th	Th	H	T	O
		②	②	
		④	③	
		7	5	4
		×	5	8
	①	6	0	3	2
	3	7	7	0	+
	4	3,	7	3	2

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(h) 643 × 23

T-Th	Th	H	T	O
		(1)		
		6	4	3
		×	2	3
		1	9	2
1	2	8	6	+
1	4	,	7	8

(i) 682 × 76

T-Th	Th	H	T	O
		(5)	(1)	
		(4)	(6)	
		6	8	2
		×	7	6
	4	0	9	2
(1)				
4	7	7	4	+
5	1	,	8	3

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(j) 921 × 74

T-Th	Th	H	T	O
		(1)		
		9	2	1
		×	7	4
	(1)		(1)	
	3	6	8	4
	6	4	4	7 +
	6	8	2	1 5 4

(k) 392 × 54

T-Th	Th	H	T	O
		(2)		
		(3)	(1)	
		3	9	2
		×	5	4
		(1)		
	(1)	1	5	6 8
	1	9	6	0 +
	2	1	1	6 8

(1) 493 × 42

T-Th	Th	H	T	O
		(2)		
		(1)	(1)	
		4	9	3
		×	4	2
		(1)		
		9	8	6
(1)	(1)			
1	9	7	2	+
2	0	7	0	6

Excercise (B)

1. Multiply each given number by 10

(a) 408

Sol^n Th H T O or $408 \times 10 = 4080$

	4	0	8	
×		1	0	
4	0	8	0	

(b) 128

Sol^n $128 \times 10 = 1,280$

(c) 89

Sol^n $89 \times 10 = 890$

(d) 930

Sol^n $930 \times 10 = 9,300$

(e) 1898

Sol^n $1898 \times 10 = 18,980$

(f) 2493

Soln $2493 \times 10 = 24,930$

(g) 56095

Soln $56095 \times 10 = 5,60,950$

(h) 78220

Soln $78220 \times 10 = 7,82,200$

(2) Multiply each given number by 100

(a) 47

Soln $47 \times 100 = 4,700$

(b) 708

Soln $708 \times 100 = 70,800$

(c) 568

Soln $568 \times 100 = 56,800$

(d) 7540

Soln $7540 \times 100 = 7,54,000$

(e) 8922

Soln $8922 \times 100 = 8,92,200$

(f) 63091

Sol^n $63091 \times 100 = 6,30,900$

(g) 98201

Sol^n $98201 \times 100 = 98,20,100$

(h) 99999

Sol^n $99999 \times 100 = 99,99,900$

(3) Multiply the given number by 1000

(a) 64

Sol^n $64 \times 1000 = 64,000$

(b) 2310

Sol^n $2310 \times 1000 = 23,10,000$

(c) 464

Sol^n $464 \times 1000 = 4,64,000$

(d) 625

Sol^n $625 \times 1000 = 6,25,000$

(e) 4001

Sol^n $4001 \times 1000 = 40,01,000$

(f) 4001

Soln $4001 \times 1000 = 4,001,000$

(g) 8349

Soln $8349 \times 1000 = 8,349,000$

(h) 5466

Soln $5466 \times 1000 = 54,66,000$

(4) Multiply :

(a) $28 \times 100 = 2,800$

(b) $243 \times 10 = 2,430$

(c) $1720 \times 100 = 1,72,000$

(d) $8401 \times 10 = 84,010$

(e) $403 \times 1000 = 4,03,000$

(f) $893 \times 1000 = 8,93,000$

(g) $55 \times 1000 = 55,000$

(h) $4005 \times 1000 = 40,05,000$

Exercise 6(C)

Date ___/___/___ Exercise

Multiply the following :

(a) 4,142 × 16

```
   ② ①
  4,1 4 2
    × 1 6
  ----------
   ①
 2 4 8 5 2
 4 1 4 2 +
 ----------
 6 6,2 7 2
```

(b) 8,148 × 19

```
 ① ④ ⑦
  8 1 4 8
    × 1 9
 ----------
     ①
 7 3 3 3 2
 8 1 4 8 +
 ----------
 1,5 4,8 1 2
```

(c) 3,163 × 98

```
 ① ⑤  ②
 ① ⑤ ②
   3 1 6 3
     × 9 8
 ----------
 1 2 5 3 0 4
 2 8 4 6 7 +
 ----------
 3,0 9,9 7 4
```

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(d) 9,076 × 63

④ ③
② ①
9 0 7 6

① × 6 3
2 7 2 2 8
5 4 4 5 6 +
5,7 1 7 8 8

(e) 7,805 × 82

⑥ ④
① ①
7,805

① ① × 8 2
1 5 6 1 0
6 2 4 4 0 +
6,4 0,0 1 0

(f) 67,368 × 12

⑧ ④ ⑦ ⑤
6 7 3 6 8

× 1 2
8,0 8,3 7 6

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(g) 50,515 × 29

(1) (1)
(4) (1) (4)
50515
× 29
454635
101030+
14,64,935

(h) 31,789 × 59

(2) (4) (4)
(1) (7) (8) (9)
31789
× 59
(1) (1)
286101
158945+
18,75,551

(i) 89,022 × 43

(3)
(2)
89022
× 43
(1) (1)
267066
356088+
38,27,946

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(j) 29,885 × 99

(8)(1)(7)(4)

29885

× 99

(1)(1)(1)(1)

268965

268965+

2958615

Date __/__/____ Exercise 6(D)

1. Multiply.

(a) Four hundred ninety six by two hundred sixty two.

Sol^n

$$\begin{array}{r} 496 \\ \times\ 262 \\ \hline 992 \\ 2976+ \\ 9920++ \\ \hline 1,29,952 \end{array}$$

(b) Seven thousand eighteen by one hundred twenty.

Sol^n

$$\begin{array}{r} 7018 \\ \times\ \ 120 \\ \hline 0000 \\ 14036+ \\ 70180++ \\ \hline 8,42,160 \end{array}$$

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(c) Nine thousand two hundred fifty five by three hundred ten.

Sol^n

```
      ③ ①
      9 2 5 5
    x 3 1 0
    -------
      0 0 0 0
    ① 9 2 5 5 +
  ① 2 7 7 6 5 + +
  ---------------
  2 8 8 9 0 5 0
```

(d) Eight hundred twenty five by four hundred eighty six.

Sol^n

```
    ① ② ②
      ③ ③
      8 2 5
    x 4 8 6
    -------
      5 1 5 0
    ① 6 6 0 0 +
  ① 3 3 0 0 + +
  ---------------
  4 0 1 1 5 0
```

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(c) Seventy thousand five hundred sixteen by one hundred eighteen.

Soln

$$
\begin{array}{r}
\overset{(2)}{}\overset{(1)}{}\overset{(1)}{} \\
70,516 \\
\times\ 118 \\
\hline
\overset{(1)}{}\overset{(1)}{} \\
5\ 6\ 4\ 1\ 2\ 8 \\
\overset{(1)}{}\ 7\ 0\ 5\ 1\ 6\ + \\
7\ 0\ 5\ 1\ 6\ +\ + \\
\hline
8\ 3,2\ 0,8\ 8\ 8
\end{array}
$$

(2) Find the product:

(a) 729×341

$$
\begin{array}{r}
\overset{(2)}{} \\
\overset{(1)}{}\overset{(3)}{} \\
7\ 2\ 9 \\
\times\ 3\ 4\ 1 \\
\hline
\overset{(1)}{}\overset{(1)}{}7\ 2\ 9 \\
2\ 9\ 1\ 6\ + \\
2\ 1\ 8\ 7\ +\ + \\
\hline
2,4\ 8,5\ 8\ 9
\end{array}
$$

(b) 565 × 525

```
    ① ①
    ③ ②
     5 6 5
   × 5 2 5
 ① 2 8 2 5
  1 1 3 0 +
 2 8 2 5 + +
 2,9 6,6 2 5
```

(c) 902 × 436

```
       ①
     9 0 2
   × 4 3 6
 ① 5 4 1 2
 ① 2 7 0 6 +
 3 6 0 8 + +
 3,9 3,2 7 2
```

(d) 783 × 298

```
      ①
      ⑦ ②
      ⑥ ②
      7 8 3
    × 2 9 8
   ① ① 6 2 6 4
 ① 7 0 4 7 +
 1 5 6 6 + +
 2,3 3,3 3 4
```

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er = 5 Quotient = 37

(e) 524 × 421

```
   ①
   524
 × 421
 ------
   ①
   524
 ①①
  1048 +
 2096 + +
 --------
 2,20,604
```

(f) 9,307 × 678

```
   ②   ④
   ②   ⑤
   9307
 × 678
 ------
     ①
 ①74456
 65149 +
 -------
 7,25,946
```

(g) 2,892 × 209

```
   ① ①
  ⑧②①
   2892
 × 209
 ------
 ①26028
 ,0000 +
 5784 + +
 --------
 6,04,428
```

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(h) 8,098 × 789

(6) (5)
(7) (6)
(8) (7)
8 0 9 8
× 7 8 9
(1) (2) (1)
(1) (2) 7 2 8 8 2
6 4 7 7 8 4 +
5 6 6 8 6 + +
1,2 2,1 9,3 2 2

(i) 5,793 × 423

(3) (3)
(1) (1)
(2) (2) (1)
5 7 9 3
× 4 2 3
(2) (1) (1)
1 7 3 7 9
1 1 5 8 6 +
2 3 1 7 2 + +
2 4,5 0,4 3 9

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(j) $6,974 \times 542$

$$
\begin{array}{r}
6\,9\,7\,4 \\
\times\ 5\,4\,2 \\
\hline
1\,3\,9\,4\,8 \\
2\,7\,8\,9\,6+ \\
3\,4\,8\,7\,0++ \\
\hline
3\,7\,7\,9\,9\,0\,8
\end{array}
$$

(k) $63,174 \times 109$

$$
\begin{array}{r}
6\,3\,1\,7 \\
\times\ 1\,0\,9 \\
\hline
5\,6\,8\,5\,3 \\
0\,0\,0\,0+ \\
6\,3\,1\,7++ \\
\hline
6,88,553
\end{array}
$$

Date

(l) 31,489 × 213

```
     31489
   ×   213
     94467
    31489+
   62978++
 67,07,157
```

(m) 27,899 × 326

```
      27899
    ×   326
     167394
     55798+
    82198++
  70,05,174
```

(n) 51,623 × 163

```
      51,623
    ×    163
      154869
      309738+
     51623++
  3,63,14,549
```

Date __/__/____ Exercise 6E

1. The cost of a toaster is ₹1,750. A shopkeeper bought 50 toasters for selling. How much did he pay for 50 toasters?

Sol

$$\begin{array}{r} ₹1,750 \times 50 \\ \hline 0000 \\ 8750+ \\ \hline ₹87,500 \end{array}$$

The shopkeeper paid ₹87,500 for 50 toasters.

2. A man bought 120 bags of apples. Each bag contains 2,121 apples. How many apples are there in all?

Sol

$$\begin{array}{r} 2121 \\ \times 120 \\ \hline 0000 \\ 4242+ \\ 2121++ \\ \hline 2,54,520 \end{array}$$

2,54,520 apples are there in all.

3. A shopkeeper sells 16,520 packets of milk. Each packet contains costs ₹25. How much money did he get at the end?

Sol:

$$\begin{array}{r} 16,520 \\ \times\ 25 \\ \hline 82600 \\ 33040+ \\ \hline ₹4,13,000 \end{array}$$

The shopkeeper gets ₹4,13,000 at the end.

4. Mohan distributed toffees on his birthday. There are 8,552 students and 25 teachers whom he distributed 4 toffees each. How many toffees did he distribute?

Sol:

$$\begin{array}{r} 8552 \\ +\ 25 \\ \hline 8577 \end{array} \qquad \begin{array}{r} 8577 \\ \times\ 4 \\ \hline 34308 \end{array}$$

Mohan distributed 34,308 toffees

Date

5. A Society has 19 floors. If there are 32,701 people on each floor how many people are there in the society?.

Sol^n

```
  (2)(6)
  3 2 7 0 1
(1)(1)  × 1 9
2 9 4 3 0 9
3 2 7 0 1 +
6,2 1,3 1 9
```

6,21,319 people are there in the society.

6. A train has 18 compartments and each compartment consists of 3,178 passengers at peak hours. How many passengers travel in the train during peak hours.

Sol^n

```
  (1)(6)(6)
  3 1 7 8
    × 1 8
(1)(1)
2 5 4 2 4
3 1 7 8 +
5 7,2 0 4
```

57,204 Passengers travel in train during Peak hours.

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7) In a park there are 31,250 flowers plants and 78,178 trees in a row. Calculate the total number of trees and flower plants in 15 such rows.

Sol^n

$$\begin{array}{r} {\scriptstyle 1} \\ 31250 \\ +\,78178 \\ \hline 1,09,428 \end{array}$$

$$\begin{array}{r} {\scriptstyle 4\ 2\ 1\ 4} \\ 1,09,428 \\ \times\ 15 \\ \hline {\scriptstyle 1\ 1\ 1} \\ 5\,4\,7\,1\,4\,0 \\ 1\,0\,9\,4\,2\,8+ \\ \hline 1,6,4,1,4\,2\,0 \end{array}$$

There are 16,41,420 number of trees and flower plants in 15 such rows.

8. What will be the cost of 25 cars if one car costs ₹3,24,230?

Sol^n

$$\begin{array}{r} 324230 \\ \times\ 25 \\ \hline 1621150 \\ 6484600+ \\ \hline 8105750 \end{array}$$

The cost of 25 cars is ₹8105750

9. A man has 10 notes of ₹2000 and 19 notes of ₹500. How much money did he have?

Sol^n

$$\begin{array}{r} 2000 \\ \times\ 10 \\ \hline 20,000 \end{array} \qquad \begin{array}{r} 500 \\ \times\ 19 \\ \hline 9,500 \end{array}$$

Total money = ₹ 20,000
+ ₹ 9,500
₹ 29,500

Date

(Sauthi)

10. A factory produces 3,500 boxes a day. How many boxes will be produced in the months of March and April (March = 31 days, April = 30da

Sol: Boxes produced in march month = 3500 × 31

```
  3500
 10500+
 108500
```

Boxes produced in April month = 3500 × 30

```
  0000
 10500+
 105000
```

Total = 1,08,500 + 1,05,000

= 2,13,500 boxes.