

CLASS : 2
SESSION NO : 7
SUBJECT : MATHEMATICS
TOPIC: CH-6 MULTIPLICATION
SUB TOPIC: MULTIPLICATION OF TWO-DIGIT NUMBERS BY ONE-DIGIT
NUMBER(WITH CARRY OVER) .

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TODAY'S TOPIC

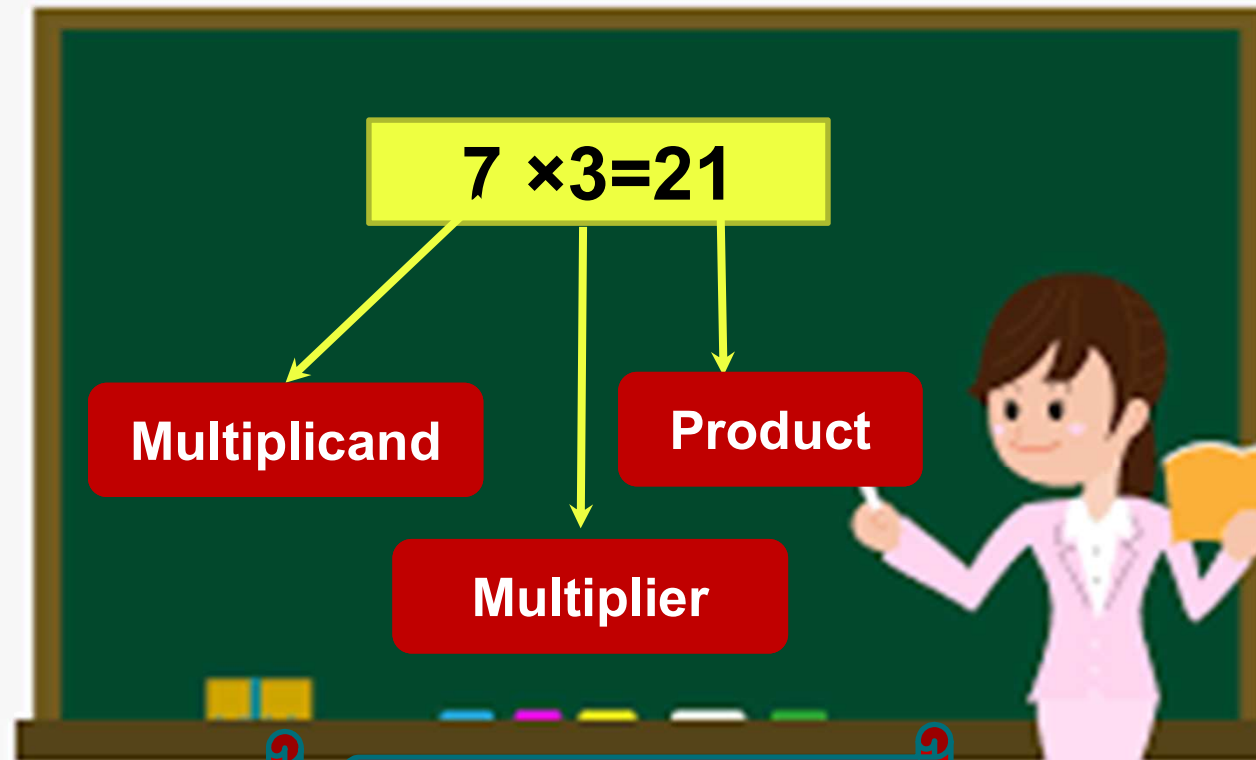
**MULTIPLICATION OF 2-DIGIT NUMBERS
BY 1-DIGIT NUMBER (WITH CARRY
OVER.
BOOK PAGE-66**

*Multiplication is repeated addition.

*When two numbers are multiplied, the answer is called **PRODUCT**.

*The sign of multiplication is ' \times '.





The number which is being multiplied is called multiplicand.

The number by which the multiplicand is multiplied is called the multiplier.

When a number is multiplied by 1, the product is the number itself.

The product of 2 numbers remains the same even after changing the order of the numbers.

When a number is multiplied by 0, the product is always 0



Multiplication of Two-digit numbers by One-digit number (without carry over)

Let's have a
recap

Multiply 24
by 2

	T	O
×	2	4
	4	8

The diagram illustrates the multiplication process for 24 by 2. The numbers are arranged in a grid with columns labeled 'T' (Tens) and 'O' (Ones). The multiplier '2' is on the left, and the multiplicand '24' is on top. The product '48' is shown below. A red circle highlights the '2' in the ones place of the multiplicand. A red arrow points from this '2' to the '8' in the ones place of the product. Another red arrow points from the '2' in the tens place of the multiplicand to the '4' in the tens place of the product. A black arrow points from the '2' in the ones place of the multiplier to the '4' in the tens place of the product, indicating the multiplication of 2 by 20.





$$\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$$

$$\begin{array}{r} 15 \\ \times 4 \\ \hline ? \end{array}$$

Today's topic

Multiplication of Two-digit numbers by a One –digit number(with carry over)

	T	O
+	1	5
x		4
	6	20

	T	O
	3	6
x		6
	21	36

Method :

Step 1 : Start with the ones. Multiply 6 with 6.

$$6 \text{ ones} \times 6 \text{ ones} = 36 \text{ ones} = 3 \text{ tens} + 6 \text{ ones.}$$

Write 6 under ones' column and carry over 3 tens to the tens' column.

Step 2 : Multiply 3 by 6 and add the carry over to the product.

$$\begin{aligned} 3 \text{ tens} \times 6 \text{ ones} &= 18 \text{ tens} + 3 \text{ tens (carry over)} \\ &= 21 \text{ tens} \\ &= 2 \text{ hundreds} + 1 \text{ ten} \end{aligned}$$

Write 1 under tens' column and carry over 2 hundreds to the hundreds' column.

Ans. 216

Method :

Step 1 : Start with the ones. Multiply 5 with 4.

$$5 \text{ ones} \times 4 \text{ ones} = 20 \text{ ones} = 2 \text{ tens} + 0 \text{ ones.}$$

Write 0 under ones' column and carry over 2 tens to the tens' column.

Step 2 : Multiply 1 with 4 and add the carry over to the product.

$$\begin{aligned} 1 \text{ ten} \times 4 \text{ ones} &= 4 \text{ tens} + 2 \text{ tens (carry over)} \\ &= 6 \text{ tens} \end{aligned}$$

Write 6 under tens' column.

Ans. 60



Exercise

Multiply the following.

$$\begin{array}{r} \text{T O} \\ \text{1} \\ 45 \\ \times \quad 2 \\ \hline 90 \end{array}$$

$$\begin{array}{r} \text{T O} \\ \text{1} \\ 33 \\ \times \quad 5 \\ \hline 165 \end{array}$$

$$\begin{array}{r} \text{T O} \\ \text{2} \\ 14 \\ \times \quad 7 \\ \hline 98 \end{array}$$

T O
①
7 9
x 2
1 5 8

T O
②
5 3
x 7
3 7 1

T O
①
8 2
x 6
4 9 2

SUB

HOME ASSIGNMENT

Mathematics



Expected learning
outcome: Children
are able to multiply
Two-digit numbers
by One-digit
number with carry
over..



THANKING YOU
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