

MATHEMATICS MULTIPLICATION





CLICK HERE TO ACTIVATE



MULTIPLICATION

READY ... STEADY

Write the following as multiplication statements.



































+

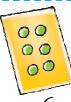








6



6

	l .
	l .
_	
_	



2 +



2



2 +





REPEATED ADDITION IS MULTIPLICATION



2 + 2 + 2 + 2 = 8

There are 4 groups of 2 shoes each.

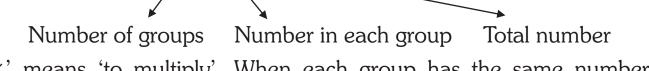
How many shoes in all?

How many times did we add 2 to get 8? ____ times.

We say that: 4 times 2 equals 8

or 4 times 2 are 8

We write this as: $4 \times 2 = 8$



'x' means 'to multiply'. When each group has the same number of objects, we multiply to find the answer.

Repeated addition is multiplication.

Count and write.

Number of groups: _____

Number of flowers in each group : _____

Total number of flowers = ____ × ___ = ____

Number of groups :

Number of brushes in each group : _____

Total number of brushes = ____ × ___ = ___

Number of groups:

Number of apples in each group : _____

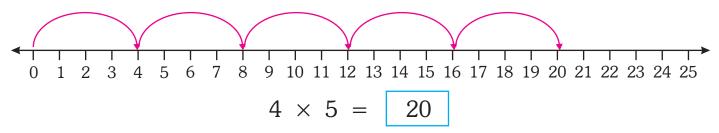
Total number of apples = ____ × ___ = ____



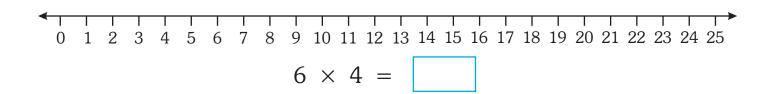


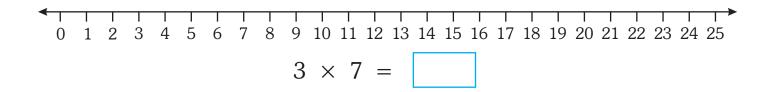
MULTIPLICATION ON THE NUMBER LINE

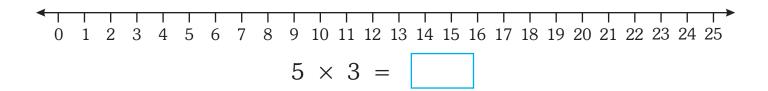
Example: Multiply 4 by 5.

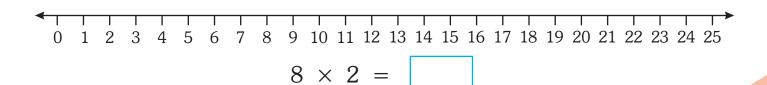


Multiply the following using the number line.









MULTIPLICATION TABLES

1 time 5 is 5	1 × 5 =
2 times 5 is 10	2 × 5 =
3 times 5 is 15	3 × 5 =
4 times 5 is 20	4 × 5 =
5 times 5 is 25	5 × 5 =
6 times 5 is 30	6 × 5 =
7 times 5 is 35	7 × 5 =
8 times 5 is 40	8 × 5 =
9 times 5 is 45	9 × 5 =
10 times 5 is 50	10 × 5 =

**	1 time 6 is 6	1 × 6 =
	2 times 6 is 12	2 × 6 =
*************************************	3 times 6 is 18	3 × 6 =
	4 times 6 is 24	4 × 6 =
*************************************	5 times 6 is 30	5 × 6 =
******	6 times 6 is 36	6 × 6 =
*******	7 times 6 is 42	7 × 6 =
*******	8 times 6 is 48	8 × 6 =
********	9 times 6 is 54	9 × 6 =
*********	10 times 6 is 60	10 × 6 =

1 time 7 is 7	1 × 7 =
2 times 7 is 14	2 × 7 =
3 times 7 is 21	3 × 7 =
4 times 7 is 28	4 × 7 =
5 times 7 is 35	5 × 7 =
6 times 7 is 42	6 × 7 =
7 times 7 is 49	7 × 7 =
8 times 7 is 56	8 × 7 =
9 times 7 is 63	9 × 7 =
10 times 7 is 70	10 × 7 =

1 time 8 is 8	1 × 8 =
2 times 8 is 16	2 × 8 =
3 times 8 is 24	3 × 8 =
4 times 8 is 32	4 × 8 =
5 times 8 is 40	5 × 8 =
6 times 8 is 48	6 × 8 =
7 times 8 is 56	7 × 8 =
8 times 8 is 64	8 × 8 =
9 times 8 is 72	9 × 8 =
10 times 8 is 80	10 × 8 =

1 time 9 is 9	1 × 9 =
2 times 9 is 18	2 × 9 =
3 times 9 is 27	3 × 9 =
4 times 9 is 36	4 × 9 =
5 times 9 is 45	5 × 9 =
6 times 9 is 54	6 × 9 =
7 times 9 is 63	7 × 9 =
8 times 9 is 72	8 × 9 =
9 times 9 is 81	9 × 9 =
10 times 9 is 90	10 × 9 =

1 time 10 is 10	1 × 10 =
2 times 10 is 20	2 × 10 =
3 times 10 is 30	3 × 10 =
4 times 10 is 40	4 × 10 =
5 times 10 is 50	5 × 10 =
6 times 10 is 60	6 × 10 =
7 times 10 is 70	7 × 10 =
8 times 10 is 80	8 × 10 =
9 times 10 is 90	9 × 10 =
10 times 10 is 100	10 × 10 =

Fill in the blanks

$$1 \times 8 =$$

$$5 \times 5 =$$

$$4 \times 7 =$$

$$6 \times 7 =$$

$$2 \times 6 =$$

$$5 \times 6 =$$

$$8 \times 9 =$$

$$7 \times 4 =$$

$$1 \times 9 =$$

$$9 \times 3 =$$

$$3 \times 5 =$$

$$3 \times 8 =$$

$$4 \times 10 =$$

$$3 \times 2 =$$

$$3 \times 9 =$$

$$10 \times 2 =$$

$$4 \times 4 =$$

$$2 \times 1 =$$

$$5 \times 1 =$$

$$6 \times 9 =$$

$$3 \times 8 =$$

$$8 \times 3 =$$

$$2 \times 10 =$$

$$6 \times 3 =$$

$$8 \times 2 =$$

$$7 \times 1 =$$

$$1 \times 7 =$$

$$8 \times 8 =$$

$$7 \times 2 =$$

$$2 \times 8 =$$

$$9 \times 1 =$$

$$10 \times 5 =$$

$$1 \times 6 =$$

$$9 \times 4 =$$

$$4 \times 9 =$$

$$10 \times 7 =$$

$$6 \times 10 =$$

$$7 \times 6 =$$

$$8 \times 5 =$$

MATHS LAB

Objective: To learn and reinforce the concept of multiplication

Materials Required: Bingo cards, Pencils, Crayons for all students

For example,

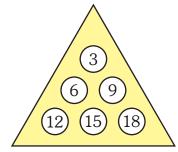
This is a bingo card.

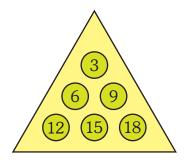
Steps:

- 1. Give each student a card like the one shown above, with 6 circles in each card.
- 2. Ask the students to write any 6 multiples of 3 in the circles.
- 3. Give a crayon to each student. Start calling out the multiples of 3 in any order. If a student has one of the called out numbers in his card, then he should colour that circle.

There are 3 ways of completing first.

- The three corners
- Each row
- All the circles





It is an excellent way of finding out if they know all the multiples of a given number. The game could be played many times to help every child get a chance to complete first.

MULTIPLICATION FACTS

When a number is multiplied by 0, the answer is always zero.

$$2 \times 0 = 0$$

$$14 \times 0 = 0$$

$$19 \times 0 = 0$$

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

$$7 \times 1 = 7$$

$$12 \times 1 = 12$$

$$22 \times 1 = 22$$

A change in the order of the factors does not change the answer.

$$3 \times 4 = 12$$

$$4 \times 3 = 12$$

Fill in the blanks.

$$3 \times 0 =$$

$$7 \times 1 =$$

$$3 \times 5 =$$

$$7 \times 4 =$$

$$4 \times 2 =$$

$$2 \times 4 =$$



MULTIPLICATION OF A 2-DIGIT NUMBER WITH A 1-DIGIT NUMBER

Example: Multiply 23 by 2.

Step 1: Multiply the digit 3 in ones place by 2

and write the answer in ones column.

 $(3 \times 2 = 6)$

Step 2: Multiply the digit 2 in tens place by 2

and write the answer in tens column.

 $(2 \times 2 = 4)$

T

So, $23 \times 2 = 46$

0

T	0
2	3
×	2
4	6

Find the product.

T	O
2	3

X

MULTIPLICATION OF A 2-DIGIT NUMBER WITH A 1-DIGIT NUMBER (WITH CARRYING)

Example: Multiply 27 by 3.

Step 1: Multiply the digit 7 in ones place by 3.

 $7 \times 3 = 21 (2 \text{ tens} + 1 \text{ one})$

Write 1 in the ones column of the answer.

Carry 2 tens to the tens column.

Step 2: Multiply the digit 2 in tens place by 3.

 $2 \times 3 = 6 \text{ tens}$

Add 2 tens (carried from the ones column)

6 tens + 2 tens = 8 tens

Write 8 in the tens column.

Answer is 81.

Find the product.

T	O	
4	8	
×	2	

T

4

X

0

5

2

T

1

X

O

8

5

2

X

4

4

T	0
2	5
×	3

T

2

X

0

7

T	O
2	6
×	3

T	0
4	5
×	2

Ī	T	0
	2	4
	×	3

0

7

3

1

2 2

×

8

T

0

8

3

X

MULTIPLICATION OF A 3-DIGIT NUMBER WITH A 1-DIGIT NUMBER (without carrying)

Example: Multiply 224 by 2.

Step 1: Multiply the digit 4 in ones place by 2.

4 ones \times 2 = 8 ones. Write 8 in the ones column.

Step 2: Multiply the digit 2 in tens place by 2.

 $2 \text{ tens} \times 2 = 4 \text{ tens}$. Write 4 in the tens column.

Step 3: Multiply the digit 2 in hundreds place by 2.

2 hundreds \times 2 = 4 hundreds. Write 4 in the hundreds column.

Answer is 448.

Find the product.

Н	T	0
2	2	1
	X	2

Н

2

4

T

2

X

4

0

4

2

8

Н	T	0
1	2	4
	×	2

MULTIPLICATION OF A 3-DIGIT NUMBER WITH A 1-DIGIT NUMBER (with carrying)

Example: Multiply 224 by 3.

Step 1: Multiply the digit 4 in ones place by 3.

 $4 \text{ ones} \times 3 = 12 \text{ ones}$. (1 ten + 2 ones)

Write 2 in the ones column.

Carry 1 ten to the tens column.

Step 2: Multiply the digit 2 in tens place by 3.

 $2 \text{ tens} \times 3 = 6 \text{ tens}.$

Add 1 ten carried from the ones column.

6 tens + 1 ten = 7 tens.

Write 7 in the tens column.

Step 3: Multiply the digit 2 in hundreds place by 3.

2 hundreds \times 3 = 6 hundreds

Write 6 in the hundreds column.

Answer is 672.

H	T	0
2	$\overset{(1)}{2}$	4
	×	3
6	7	2

Find the product.

Н	T	0
2	6	8
	×	2

Н	T	0
2	4	8
	×	3

Н	T	O
1	4	8
	×	4

Н	T	O
3	5	8
	X	2

Н	T	O
1	4	5
	×	3

WORD PROBLEMS

There are 35 bags of apples. Each bag contains 6 apples. How many apples are there in 35 bags?



Н	T	O
	3	5
	X	6
2	1	0

There are 52 toffees in one packet. How many toffees are there in 3 packets?



н т о

How many days will be there in 32 weeks? (1 week = 7 days)



н т о

There are 28 rows of trees in a garden. There are 7 trees in each row. How many trees are there in the garden?



H T O

There are 17 mangoes in 1 basket. How many mangoes are there in 4 such baskets?



H T O

If each boy has 24 toffees, how many toffees do 5 boys have?



H T O

There are 380 apples on a tree. How many apples are there on 2 trees if they have equal number of apples?



H T O

6 buttons are stitched on each shirt. How many buttons are needed for 129 shirts?



н т о

Each tricycle has 3 wheels. How many wheels will be needed for 243 tricycles?



H T O

Each car carries 4 students. How many students will 176 cars carry?



H T O

WORKSHEET

1. Recall and fill up the blanks.

 $6 \times 2 =$

 $3 \times 5 =$

 $2 \times 4 =$

4 × 1 =

10 × 9 =

9 × 10 =

 $5 \times 7 =$

 $7 \times 3 =$

8 × 8 =

2. Multiply.

 H
 T
 O

 3
 2

 ×
 2

H T O 4 3 × 6 H T O

1 2 3

× 3

H T O
3 6 4
× 2

3. Solve these word problems.

How many days are there in 45 weeks?

н т о

How many wheels are there in 236 auto rickshaws?

H T O

There were 3 children standing in 1 row. How many children will stand in 125 rows?