

Divide Equally



Shalu went to a fair. She learnt the following with Heera, David and Mangal-



On dividing 8 bananas among 4 people, equally

at first time, $8 - 4 = 2$ (4 banana left)

at second time, $4 - 4 = 0$ (all bananas were distributed)

each person gets two bananas

$$8 \div 4 = 2$$



On dividing 20 toffees into 4 equal parts, each part contains 5 toffees.

$$20 \div 4 = 5$$



Shalu told all this to her teacher. The teacher gave her some more things to divide equally-

20 chapattis were equally distributed among 5 people-

$$20 \div 5 \text{ or}$$

$$\begin{array}{r} \square \\ 5 \overline{) 20} \\ \underline{0} \\ 00 \end{array}$$



Draw the chapattis which one person has got on this plate .

Magic of Numbers

32 apples were equally distributed among 8 children.

$$32 \div 8 \text{ or}$$

$$\begin{array}{r} \square \\ 8 \overline{) 32} \\ - \square \\ \hline 00 \end{array}$$

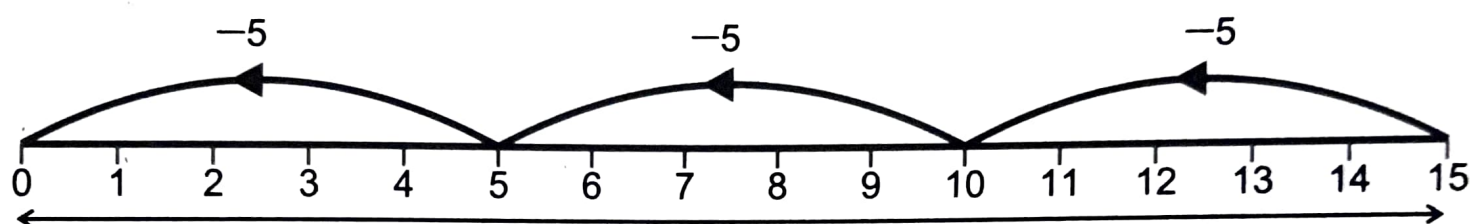


Draw the apples in the basket which one person has got

Now the teacher told Shalu another method of equal distribution.

$$15 \div 5 \text{ or}$$

$$5 \overline{) 15}$$



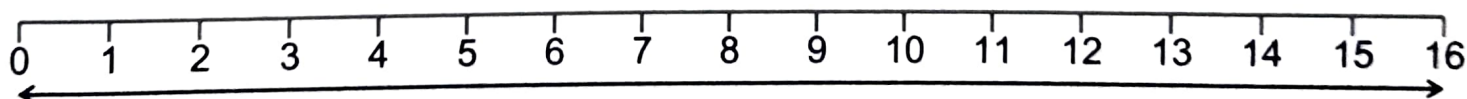
We start from 15 on the number line and reach 0 in three times.

$$15 \div 5 = 3 \text{ or } \begin{array}{r} \boxed{3} \\ 5 \overline{) 15} \\ - \boxed{15} \\ \hline 00 \end{array}$$

It means 5 is included three times in 15. ($3 \times 5 = 15$)

You also practise-

$$16 \div 4$$



We start from 16 on the number line and reach 0 in times.

$$16 \div 4 = \dots \text{ या } \begin{array}{r} \square \\ 4 \overline{) 16} \\ - \square \\ \hline 00 \end{array}$$

It means 4 is included times in 16. (..... $\times 4 =$)

Now the teacher gave 7 toy cars to distribute equally among 3 children.

Shalu divided- $7 \div 3$

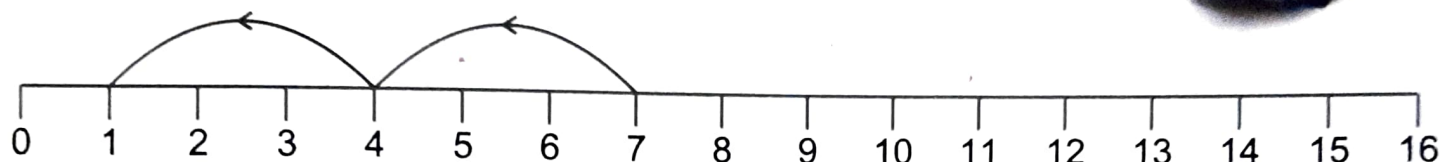
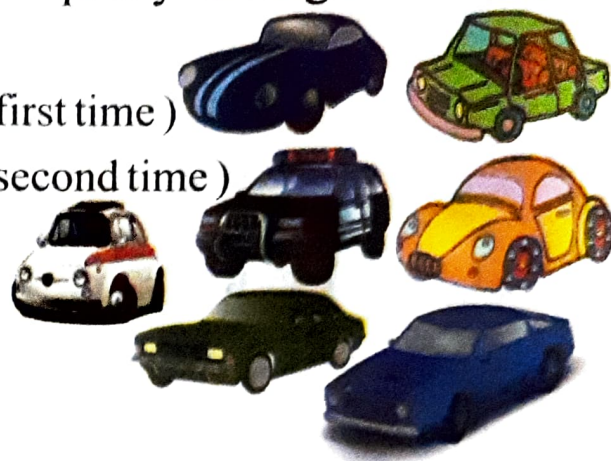
$$7 - 3 = 4 \quad (\text{distributed first time})$$

$$4 - 3 = 1 \quad (\text{distributed second time})$$

Each child got 2 toy cars.

1 toy car is left

Shalu divided by this method too-



Starting from 7, skip count backwards by 3, You reached at 1 in 2 times. and then, there are no numbers to skip count by 3.

So, 1 is left.

$$7 \div 3 = 2 \text{ and remainder is } 1.$$

Shalu divided by this method too-

$$\begin{array}{r} 2 \\ 3 \overline{) 7} \\ \underline{- 6} \\ 1 \end{array}$$

Again remainder is 1.

Shalu got puzzled. 1 is left by applying all the methods of distribution.

Then the teacher explained-

On dividing equally if such things are left which are not divisible further, then that is written as remainder.

Look-

$$\begin{array}{r} 2 \leftarrow (\text{Quotient}) \\ (\text{Divisor}) \longrightarrow 3 \overline{) 7} \leftarrow (\text{Dividend}) \\ \underline{- 6} \\ 1 \leftarrow (\text{Remainder}) \end{array}$$

Here, 3 is divisor (the number which divides), 7 is dividend (the number to be divided), 2 is quotient (the number or share of each) and 1 is the remainder (the number left after division).

Divide equally and tell the remainder –

50 toffees in 6 parts - quotient remainder

67 toffees in 9 parts - quotient remainder

100 marbles in 8 parts - quotient remainder

Toy shop-

Shalu has to set up a toy shop on Diwali. She went to the toy supplier. She purchased different types of toys. The toys were kept in the bags in this manner-



Fill in the blanks in the given table-

Toy's name	Number of toys	Number of bags	Number of toys in each bag	Remaining toys
Lion	107	3	35	2
Elephant	255	9		
Horse	172	7		
Parrot	182	6		

Like- There are 107 lions and 3 bags in the first row.

$$\begin{array}{r} 35 \\ 3 \overline{) 107} \\ \underline{- 9} \downarrow \\ 17 \\ \underline{- 15} \\ 02 \end{array}$$

Number of lions in one bag = 35
Number of lions remained = 2

Let us divide by zero-

Now solve, $7 \div 0$ and $12 \div 0$

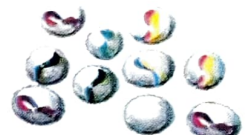
Are we able to find any solution of it? How many times 0(zero) is included in 7 or 12? It means no number can be divided by zero. Hence it is undefined.

Let us divide by 10-

Divide 20 marbles in heaps of 10 each-



$$\begin{array}{r} 2 \\ 10 \overline{) 20} \\ \underline{- 20} \\ 00 \end{array}$$



two heaps will be formed.

➤ Divide 30 toffees equally among 10 people-

$$\begin{array}{r} 10 \overline{) 30} (\square \\ \underline{- \square} \\ 00 \end{array}$$



Each one will get toffees

Practice-

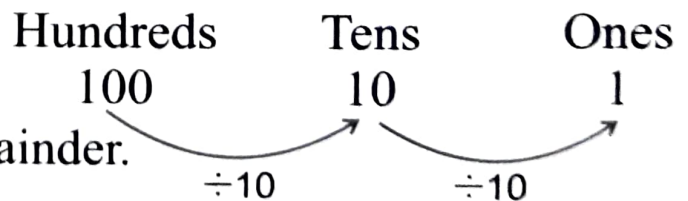
$10 \overline{) 50} ($

$10 \overline{) 75} ($

$10 \overline{) 534} ($

We found that when a number is divided by 10-

- Hundreds convert into tens.
- Tens convert into ones.
- Ones are left in the form of remainder.



For example

$$\begin{array}{r} 53 \\ 10 \overline{) 534} \text{ Quotient} \\ \underline{- 50} \downarrow \\ 34 \\ \underline{- 30} \\ 04 \text{ Remainder} \end{array}$$

Here, on dividing 534 by 10-

5 hundreds convert into 5 tens.

3 tens convert into 3 ones.

4 ones are left in the form of remainder

We have Learnt

- The number to be divided is called the dividend.
- The number which divides is called the divisor.
- Result obtained after division is called the quotient.
- The number left after division is called the remainder.
- Division of any number by zero is undefined.
- On dividing any number by 10, hundreds convert into tens, tens convert into ones and ones are left in the form of remainder



Exercise

1. (a) $64 \div 8$ (b) $127 \div 7$ (c) $230 \div 10$ (d) $539 \div 10$
2. 54 litres of milk has to be equally distributed among 9 persons. How many litres of milk will each one get?
3. A container contains 18 kilograms ghee. How many containers of 3kilograms can be filled from it?
4. Sameer weaves 48 metres of cloth in 6 days. He weaves the same length of cloth every day. How many metres of cloth does he weave in a day?
5. 40 legs of cots are visible to Ramai. How many cots are there in all?
6. A boat can carry 6 persons at a time across the river. In how many times will it carry 136 persons across the river. How many people will be carried in the last turn?



Let us play a game. Find out in the table and write-

Numbers which are completely divisible by 9

Numbers which are completely divisible by 8

Numbers which are completely divisible by 7

Numbers which are not completely divisible by 7,8 and 9.....

21	5	37	16
8	20	34	49
14	9	4	2
6	54	7	35

Make it clear to the students while doing division, when we take any new number from the dividend and the number obtained is not divisible by the divisor, then divide zero times.

How Much have you Learnt?

1. Solve them-

1. 15×5

2. 10×6

3. 732×67

4. 95×100

5. $16 \div 4$

6. $27 \div 3$

7. $45 \div 5$

8. $42 \div 6$

9. $48 \div 8$

2. The cost of one envelope is ₹ 2. Find out the cost of 4 envelopes?
3. Mohan covers a distance of 5 km in 1 hour by bicycle. How much distance will he cover in 16 hours with the same speed?
4. A box contains 60 chalk sticks. How many chalk sticks will be there in 45 such boxes.
5. **Fill in the blanks-**
- (a) $55 \div 5 = \square$ (b) $36 \div \square = 12$
- (c) $100 \times \square = 500$ (d) $\square \div 7 = 7$
6. We get 12 pencils for Rs. 12. What will be the cost of one pencil?
7. Puspa plucked 72 flowers from the garden. She made garlands having 6 flowers in each. How many garlands will be made?
8. **Put the correct sign (+, -, $\times$, $\div$) in the blanks.**

(a). $5 \dots\dots 3 = 15$

(b). $18 \dots\dots 4 = 22$

(c). $16 \dots\dots 9 = 7$

(d). $25 \dots\dots 5 = 5$