

6

Division

Warm Up

1. Rita asked her daughter Mini to arrange 12 flowers equally in 4 similar vases.

Circle the flowers to be put in each vase.

How many flowers in each vase?

$$12 \div 4 = 3 \text{ flowers}$$

2. Share 6 bananas equally among three children. Circle the bananas each child gets.

How many bananas for each child?

$$6 \div 3 = 2 \text{ bananas}$$

3. Divide 8 butterflies equally into 4 groups.

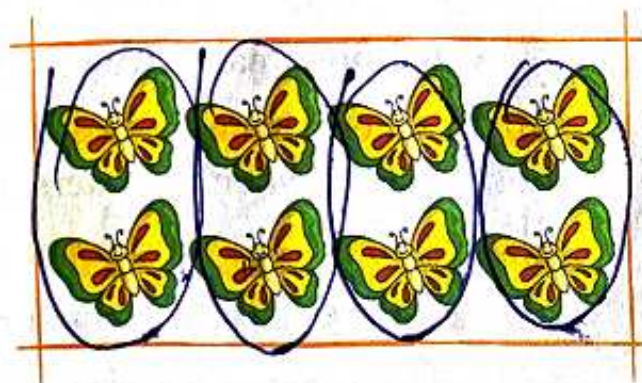
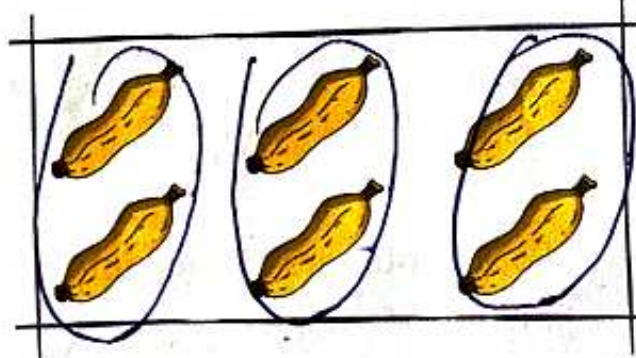
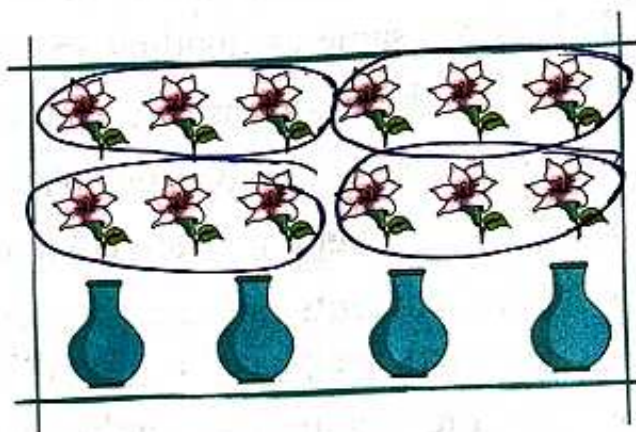
Circle the butterflies in each group.

How many butterflies in each group?

$$8 \div 4 = 2 \text{ butterflies}$$

So, we see that:

Division is sharing a given number of items equally among a number of groups.





Maths Lab Activity (Teacher to Assist)



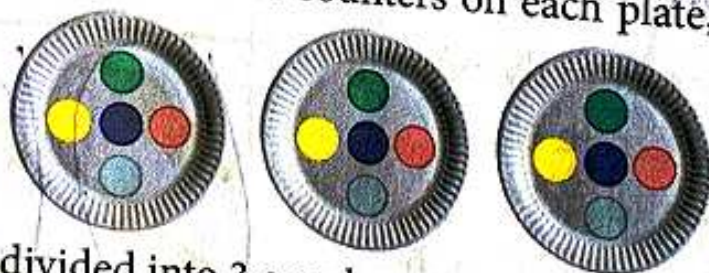
15 strawberries are divided equally among 3 sisters. How many strawberries will each sister get?



The teacher can practically get it done by students as given below.

This is the same as dividing 15 counters into 3 equal groups.

- Form three groups of 5 children each.
- Give each group 3 paper plates and 15 counters or buttons.
- Now, tell them, they are going to make 3 equal groups of 15 counters.
- Have students put one counter on each plate and repeat this until all the counters are placed on the plates.
- Let them count the number of counters on each plate, that is, 5 counters.



So, 15 counters divided into 3 equal groups means that each group contains 5 counters.

This is written as $15 \div 3 = 5$ or $3 \overline{)15}^5$, where '+' is the sign of **division**.

Now, tell how many strawberries does each sister get? 5

The teacher can make the child practise more equal grouping sums like this by giving them counters and paper plates.

(a) 12 counters into 4 equal groups

(b) 20 counters into 5 equal groups

(c) 18 counters into 6 equal groups

(d) 14 counters into 2 equal groups

$$\begin{array}{r} 3 \\ 4 \\ 3 \\ 7 \end{array}$$

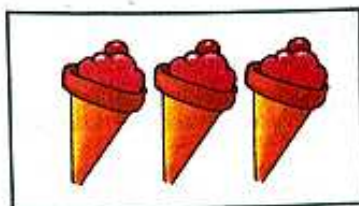
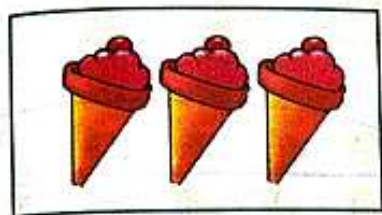


DIVIDING EQUALLY

Look at the following examples.

1. Anu has 6 ice cream cones. She wants to **divide** the ice cream cones into 2 **equal groups**.

How many ice cream cones in each group?



$\div$ is the sign we use for division. We read it as **divided** by.

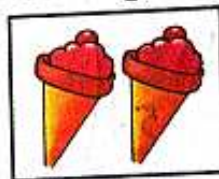


The picture shows that there are 3 ice cream cones in each group.

We say **6 divided by 2 is 3** and write $6 \div 2 = 3$

Now, Anu wants to **divide** 6 ice cream cones into 3 **equal groups**.

How many ice cream cones are there in each group?



The given picture shows that there are 2 ice cream cones in each group.

We say **6 divided by 3 is 2** and write $6 \div 3 = 2$

Thus, $6 \div 2 = 3$ and $6 \div 3 = 2$ are division sentences.

2. Manish wants to pack 12 oranges equally in 3 bags.

How many oranges in each bag?

We say **12 divided by 3 is 4** and write $12 \div 3 = 4$

Total number of oranges to be divided

Dividend

$$12 \div 3 = 4$$

Divisor

Number of groups

Number of oranges in each group

Quotient

Exercise 6A

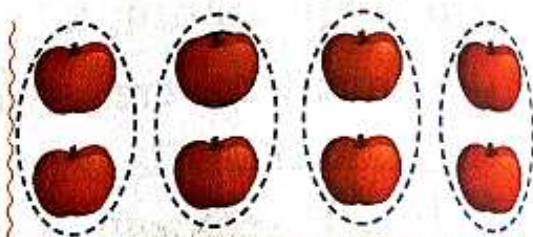


Fill in the boxes by dividing the pictures in equal groups. One has been done for you.

1. 4 children share 8 apples equally.

$$8 \div 4 = 2$$

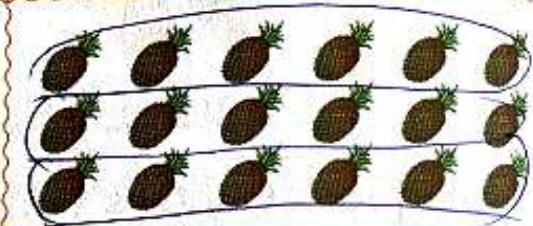
1 child gets 2 apples.



2. 18 pineapples are shared equally among 3 boys.

$$18 \div 3 = 6$$

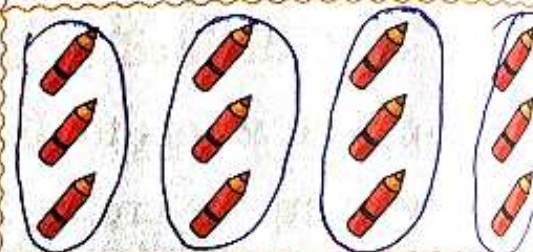
1 boy gets 6 pineapples.



3. 12 crayons are shared equally among 4 children.

$$12 \div 4 = 3$$

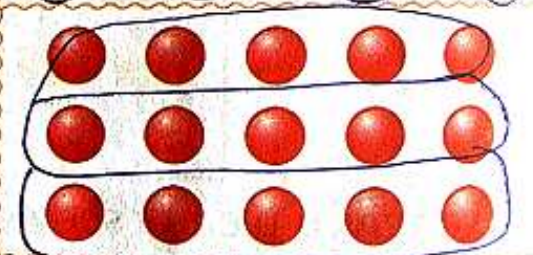
1 child gets 3 crayons.



4. 15 beads are shared equally among 3 girls.

$$15 \div 3 = 5$$

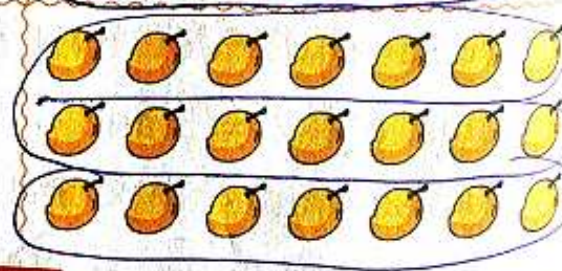
1 girl gets 5 beads.



5. 21 mangoes are put equally in 7 bags.

$$21 \div 7 = 3$$

1 bag has 3 mangoes.



DIVISION AS REPEATED SUBTRACTION

The short way of adding equal numbers is multiplication. The short way of subtracting equal numbers is division.

Hari was ill. The doctor gave him 8 tablets. For how many days did the medicine last, if he had to take 2 tablets daily?



First day :  6 tablets remained
 $8 - 2 = 6$

Second day :  4 tablets remained
 $6 - 2 = 4$

Third day :  2 tablets remained
 $4 - 2 = 2$

Fourth day :  All tablets taken.
 $2 - 2 = 0$ No tablet is left.

The medicine lasted 4 days. Here, 2 has been subtracted 4 times from 8 to get 0.

$$8 - 2 - 2 - 2 - 2 = 0$$

Instead of subtracting 2 separately 4 times, we can write in short as:

$$8 \div 2 = 4$$

or $2 \overline{)8}^4$

From the above explanation, we can say that **division** is actually **repeated subtraction**.



Class Work

Write a division fact for each, one of the following. One has been done for you.

1. $12 - 3 = 9, 9 - 3 = 6, 6 - 3 = 3, 3 - 3 = 0$

$$12 \div 3 = 4$$

(Note: 3 has been subtracted 4 times from 12 to get 0.)

2. $16 - 4 = 12, 12 - 4 = 8, 8 - 4 = 4, 4 - 4 = 0$

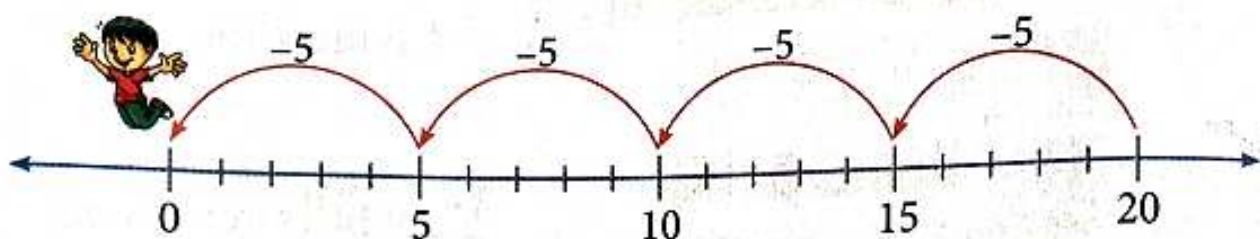
$$16 \div 4 = 4$$

3. $24 - 6 = 18, 18 - 6 = 12, 12 - 6 = 6, 6 - 6 = 0$

$$24 \div 6 = 4$$

DIVISION AS REPEATED SUBTRACTION ON THE NUMBER LINE

How many times can you subtract 5 from 20 till you get 0?
Show on the number line.



$$\begin{array}{r} 20 \\ -5 \\ \hline 15 \\ -5 \\ \hline 10 \\ -5 \\ \hline 5 \\ -5 \\ \hline 0 \end{array}$$

Start at 20. Hop 5 to the left in 1 time. In the fourth time, you will reach at 0. So, you subtract 5 four times from 20 to get 0.

So, $20 - 5 - 5 - 5 - 5 = 0$ is written as $20 \div 5 = 4$.



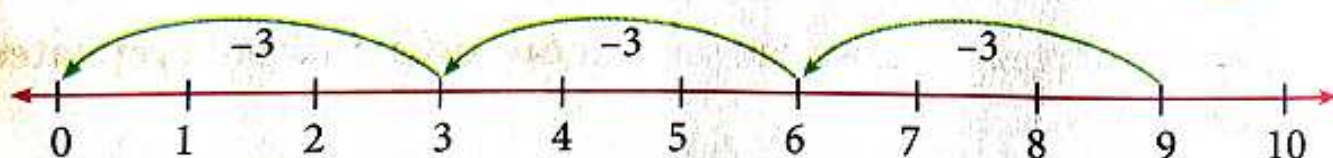
Class Work

Show each division statement on the number line.

$$9 \div 3 = \boxed{3}$$

How many times can you subtract 3 from 9?

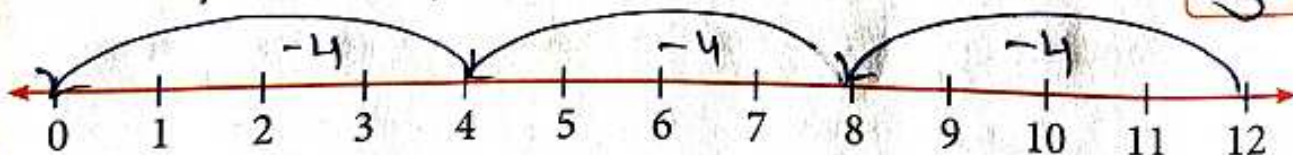
$\boxed{3}$ times



$$12 \div 4 = \boxed{3}$$

How many times can you subtract 4 from 12?

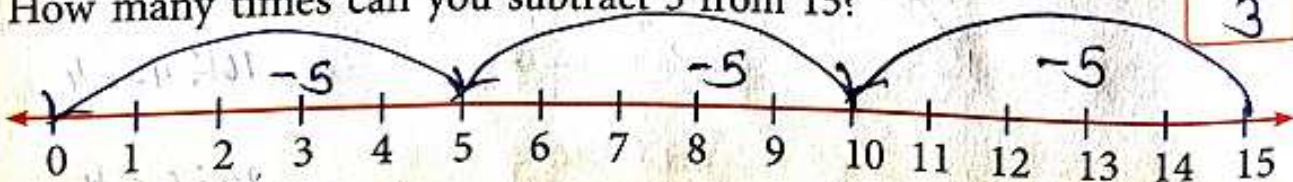
$\boxed{3}$ times



$$15 \div 5 = \boxed{3}$$

How many times can you subtract 5 from 15?

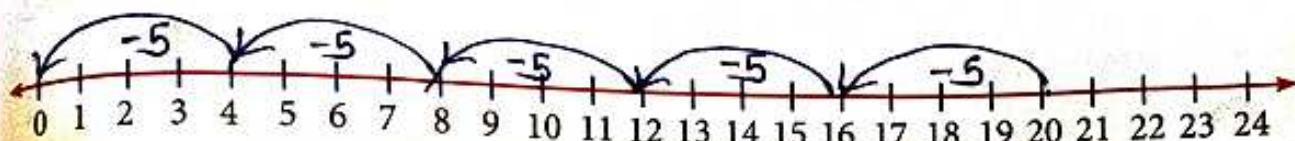
$\boxed{3}$ times



$$20 \div 4 = \boxed{5}$$

How many times can you subtract 4 from 20?

$\boxed{5}$ times



MULTIPLICATION AND DIVISION ARE RELATED



The picture shows 10 cats arranged in groups of 2.

It shows a multiplication fact: $5 \times 2 = 10$ and a division fact: $10 \div 2 = 5$

10 cats can also be arranged in groups of 5 as shown.



So, $2 \times 5 = 10$, the division fact for $2 \times 5 = 10$ is $10 \div 5 = 2$.

A few more examples are given below.

Multiplication Facts

$$\begin{aligned} 2 \times 3 &= 6 \text{ or } 3 \times 2 = 6 \\ 5 \times 6 &= 30 \text{ or } 6 \times 5 = 30 \\ 8 \times 7 &= 56 \text{ or } 7 \times 8 = 56 \\ 9 \times 4 &= 36 \text{ or } 4 \times 9 = 36 \\ 7 \times 7 &= 49 \end{aligned}$$

Division Facts

$$\begin{aligned} 6 \div 3 &= 2 \text{ or } 6 \div 2 = 3 \\ 30 \div 6 &= 5 \text{ or } 30 \div 5 = 6 \\ 56 \div 7 &= 8 \text{ or } 56 \div 8 = 7 \\ 36 \div 4 &= 9 \text{ or } 36 \div 9 = 4 \\ 49 \div 7 &= 7 \end{aligned}$$

DIVISION BY 2, 3, ..., 9

Fill in the boxes with the correct numbers.



Division by 2

$1 \times 2 = 2 \quad 2 \div 2 = 1 \quad 2 \overline{)2} \begin{array}{r} 1 \end{array}$

$2 \times 2 = 4 \quad 4 \div 2 = 2 \quad 2 \overline{)4} \begin{array}{r} 2 \end{array}$

$3 \times 2 = 6 \quad 6 \div 2 = 3 \quad 2 \overline{)6} \begin{array}{r} 3 \end{array}$

$4 \times 2 = 8 \quad 8 \div 2 = 4 \quad 2 \overline{)8} \begin{array}{r} 4 \end{array}$

$5 \times 2 = 10 \quad 10 \div 2 = 5 \quad 2 \overline{)10} \begin{array}{r} 5 \end{array}$

$6 \times 2 = 12 \quad 12 \div 2 = 6 \quad 2 \overline{)12} \begin{array}{r} 6 \end{array}$

$7 \times 2 = 14 \quad 14 \div 2 = 7 \quad 2 \overline{)14} \begin{array}{r} 7 \end{array}$

$8 \times 2 = 16 \quad 16 \div 2 = 8 \quad 2 \overline{)16} \begin{array}{r} 8 \end{array}$

$9 \times 2 = 18 \quad 18 \div 2 = 9 \quad 2 \overline{)18} \begin{array}{r} 9 \end{array}$

$10 \times 2 = 20 \quad 20 \div 2 = 10 \quad 2 \overline{)20} \begin{array}{r} 10 \end{array}$

Division by 3



$1 \times 3 = 3 \quad 3 \div 3 = 1 \quad 3 \overline{)3} \begin{array}{r} 1 \end{array}$

$2 \times 3 = 6 \quad 6 \div 3 = 2 \quad 3 \overline{)6} \begin{array}{r} 2 \end{array}$

$3 \times 3 = 9 \quad 9 \div 3 = 3 \quad 3 \overline{)9} \begin{array}{r} 3 \end{array}$

$4 \times 3 = 12 \quad 12 \div 3 = 4 \quad 3 \overline{)12} \begin{array}{r} 4 \end{array}$

$5 \times 3 = 15 \quad 15 \div 3 = 5 \quad 3 \overline{)15} \begin{array}{r} 5 \end{array}$

$6 \times 3 = 18 \quad 18 \div 3 = 6 \quad 3 \overline{)18} \begin{array}{r} 6 \end{array}$

$7 \times 3 = 21 \quad 21 \div 3 = 7 \quad 3 \overline{)21} \begin{array}{r} 7 \end{array}$

$8 \times 3 = 24 \quad 24 \div 3 = 8 \quad 3 \overline{)24} \begin{array}{r} 8 \end{array}$

$9 \times 3 = 27 \quad 27 \div 3 = 9 \quad 3 \overline{)27} \begin{array}{r} 9 \end{array}$

$10 \times 3 = 30 \quad 30 \div 3 = 10 \quad 3 \overline{)30} \begin{array}{r} 10 \end{array}$

Division by 4

$1 \times 4 = 4 \quad 4 \div 4 = 1 \quad 4 \overline{)4} \begin{array}{r} 1 \end{array}$

$2 \times 4 = 8 \quad 8 \div 4 = 2 \quad 4 \overline{)8} \begin{array}{r} 2 \end{array}$

$3 \times 4 = 12 \quad 12 \div 4 = 3 \quad 4 \overline{)12} \begin{array}{r} 3 \end{array}$

$4 \times 4 = 16 \quad 16 \div 4 = 4 \quad 4 \overline{)16} \begin{array}{r} 4 \end{array}$

$5 \times 4 = 20 \quad 20 \div 4 = 5 \quad 4 \overline{)20} \begin{array}{r} 5 \end{array}$

$6 \times 4 = 24 \quad 24 \div 4 = 6 \quad 4 \overline{)24} \begin{array}{r} 6 \end{array}$

$7 \times 4 = 28 \quad 28 \div 4 = 7 \quad 4 \overline{)28} \begin{array}{r} 7 \end{array}$

$8 \times 4 = 32 \quad 32 \div 4 = 8 \quad 4 \overline{)32} \begin{array}{r} 8 \end{array}$

$9 \times 4 = 36 \quad 36 \div 4 = 9 \quad 4 \overline{)36} \begin{array}{r} 9 \end{array}$

$10 \times 4 = 40 \quad 40 \div 4 = 10 \quad 4 \overline{)40} \begin{array}{r} 10 \end{array}$



Division by 5

$1 \times 5 = 5 \quad 5 \div 5 = 1 \quad 5 \overline{)5} \begin{array}{r} 1 \end{array}$

$2 \times 5 = 10 \quad 10 \div 5 = 2 \quad 5 \overline{)10} \begin{array}{r} 2 \end{array}$

$3 \times 5 = 15 \quad 15 \div 5 = 3 \quad 5 \overline{)15} \begin{array}{r} 3 \end{array}$

$4 \times 5 = 20 \quad 20 \div 5 = 4 \quad 5 \overline{)20} \begin{array}{r} 4 \end{array}$

$5 \times 5 = 25 \quad 25 \div 5 = 5 \quad 5 \overline{)25} \begin{array}{r} 5 \end{array}$

$6 \times 5 = 30 \quad 30 \div 5 = 6 \quad 5 \overline{)30} \begin{array}{r} 6 \end{array}$

$7 \times 5 = 35 \quad 35 \div 5 = 7 \quad 5 \overline{)35} \begin{array}{r} 7 \end{array}$

$8 \times 5 = 40 \quad 40 \div 5 = 8 \quad 5 \overline{)40} \begin{array}{r} 8 \end{array}$

$9 \times 5 = 45 \quad 45 \div 5 = 9 \quad 5 \overline{)45} \begin{array}{r} 9 \end{array}$

$10 \times 5 = 50 \quad 50 \div 5 = 10 \quad 5 \overline{)50} \begin{array}{r} 10 \end{array}$

Division by 6

$10 \times 6 = 60 \quad 60 \div 6 = 10 \quad 6 \overline{)60} \begin{array}{r} 10 \end{array}$

$2 \times 6 = 12 \quad 12 \div 6 = 2 \quad 6 \overline{)12} \begin{array}{r} 2 \end{array}$

$5 \times 6 = 30 \quad 30 \div 6 = 5 \quad 6 \overline{)30} \begin{array}{r} 5 \end{array}$

$4 \times 6 = 24 \quad 24 \div 6 = 4 \quad 6 \overline{)24} \begin{array}{r} 4 \end{array}$

$8 \times 6 = 48 \quad 48 \div 6 = 8 \quad 6 \overline{)48} \begin{array}{r} 8 \end{array}$

$6 \times 6 = 36 \quad 36 \div 6 = 6 \quad 6 \overline{)36} \begin{array}{r} 6 \end{array}$

$9 \times 6 = 54 \quad 54 \div 6 = 9 \quad 6 \overline{)54} \begin{array}{r} 9 \end{array}$

$1 \times 6 = 6 \quad 6 \div 6 = 1 \quad 6 \overline{)6} \begin{array}{r} 1 \end{array}$

$7 \times 6 = 42 \quad 42 \div 6 = 7 \quad 6 \overline{)42} \begin{array}{r} 7 \end{array}$

$3 \times 6 = 18 \quad 18 \div 6 = 3 \quad 6 \overline{)18} \begin{array}{r} 3 \end{array}$

Division by 7

$5 \times 7 = 35 \quad 35 \div 7 = 5 \quad 7 \overline{)35} \begin{array}{r} 5 \end{array}$

$3 \times 7 = 21 \quad 21 \div 7 = 3 \quad 7 \overline{)21} \begin{array}{r} 3 \end{array}$

$9 \times 7 = 63 \quad 63 \div 7 = 9 \quad 7 \overline{)63} \begin{array}{r} 9 \end{array}$

$1 \times 7 = 7 \quad 7 \div 7 = 1 \quad 7 \overline{)7} \begin{array}{r} 1 \end{array}$

$6 \times 7 = 42 \quad 42 \div 7 = 6 \quad 7 \overline{)42} \begin{array}{r} 6 \end{array}$

$8 \times 7 = 56 \quad 56 \div 7 = 8 \quad 7 \overline{)56} \begin{array}{r} 8 \end{array}$

$7 \times 7 = 49 \quad 49 \div 7 = 7 \quad 7 \overline{)49} \begin{array}{r} 7 \end{array}$

$4 \times 7 = 28 \quad 28 \div 7 = 4 \quad 7 \overline{)28} \begin{array}{r} 4 \end{array}$

$10 \times 7 = 70 \quad 70 \div 7 = 10 \quad 7 \overline{)70} \begin{array}{r} 10 \end{array}$

$2 \times 7 = 14 \quad 14 \div 7 = 2 \quad 7 \overline{)14} \begin{array}{r} 2 \end{array}$

Division by 8

$3 \times 8 = 24 \quad 24 \div 8 = 3 \quad 8 \overline{)24} \begin{array}{r} 3 \end{array}$

$6 \times 8 = 48 \quad 48 \div 8 = 6 \quad 8 \overline{)48} \begin{array}{r} 6 \end{array}$

$5 \times 8 = 40 \quad 40 \div 8 = 5 \quad 8 \overline{)40} \begin{array}{r} 5 \end{array}$

$4 \times 8 = 32 \quad 32 \div 8 = 4 \quad 8 \overline{)32} \begin{array}{r} 4 \end{array}$

$10 \times 8 = 80 \quad 80 \div 8 = 10 \quad 8 \overline{)80} \begin{array}{r} 10 \end{array}$

$7 \times 8 = 56 \quad 56 \div 8 = 7 \quad 8 \overline{)56} \begin{array}{r} 7 \end{array}$

$9 \times 8 = 72 \quad 72 \div 8 = 9 \quad 8 \overline{)72} \begin{array}{r} 9 \end{array}$

$8 \times 8 = 64 \quad 64 \div 8 = 8 \quad 8 \overline{)64} \begin{array}{r} 8 \end{array}$

Division by 9

$4 \times 9 = 36 \quad 36 \div 9 = 4 \quad 9 \overline{)36}$

$8 \times 9 = 72 \quad 72 \div 9 = 8 \quad 9 \overline{)72}$

$7 \times 9 = 63 \quad 63 \div 9 = 7 \quad 9 \overline{)63}$

$10 \times 9 = 90 \quad 90 \div 9 = 10 \quad 9 \overline{)90}$

$6 \times 9 = 54 \quad 54 \div 9 = 6 \quad 9 \overline{)54}$

$9 \times 9 = 81 \quad 81 \div 9 = 9 \quad 9 \overline{)81}$

Division by 10

$2 \times 10 = 20 \quad 20 \div 10 = 2 \quad 10 \overline{)20}$

$8 \times 10 = 80 \quad 80 \div 10 = 8 \quad 10 \overline{)80}$

$10 \times 10 = 100 \quad 100 \div 10 = 10 \quad 10 \overline{)100}$

$3 \times 10 = 30 \quad 30 \div 10 = 3 \quad 10 \overline{)30}$

LONG DIVISION METHOD

Example 1: Divide 30 by 5.

Solution: Step 1: Arrange the numbers as **Divisor** $\overline{)$ **Dividend**

$$5 \overline{)30}$$

Step 2: Now, recite the table of 5 till you reach 30.

1 five is 5	2 fives are 10	3 fives are 15
4 fives are 20	5 fives are 25	6 fives are 30

Step 3: Write 6 above the dividend as **quotient** and 30 below the dividend 30. Subtract. You get 0 which is the **remainder**.

Thus, $30 \div 5 = 6$.

	Divisor
6	Quotient
5 $\overline{)30}$	Dividend
-30	
0	Remainder

- A **quotient** is the answer to a division problem.
- A **remainder** is the number left over from a division problem.

Example 2: Divide 48 by 8.

Solution:

$$\begin{array}{r} 6 \\ 8 \overline{)48} \\ \underline{-48} \\ 0 \end{array}$$

$$\therefore 48 \div 8 = 6$$

Think

1 eight is 8	2 eights are 16
3 eights are 24	4 eights are 32
5 eights are 40	6 eights are 48



Class Work

Divide the following by long division method.

1. $\begin{array}{r} 4 \\ 6 \overline{)24} \\ \underline{-24} \\ 00 \end{array}$

2. $\begin{array}{r} 9 \\ 2 \overline{)18} \\ \underline{-18} \\ 00 \end{array}$

3. $\begin{array}{r} 10 \\ 3 \overline{)30} \\ \underline{-30} \\ 00 \end{array}$

4. $\begin{array}{r} 3 \\ 7 \overline{)21} \\ \underline{-21} \\ 00 \end{array}$

5. $\begin{array}{r} 4 \\ 5 \overline{)20} \\ \underline{-20} \\ 00 \end{array}$

6. $\begin{array}{r} 8 \\ 4 \overline{)32} \\ \underline{-32} \\ 00 \end{array}$

7. $\begin{array}{r} 5 \\ 8 \overline{)40} \\ \underline{-40} \\ 00 \end{array}$

8. $\begin{array}{r} 3 \\ 9 \overline{)27} \\ \underline{-27} \\ 00 \end{array}$

Completing Division Facts

- Examples:** $8 \div 2 = 4$. Think that 2 fours are 8.
 $27 \div 9 = 3$. Think that 9 threes are 27.
 $8 \div 8 = 1$. Think that 8 ones are 8.
 $50 \div 5 = 10$. Think that 5 tens are 50.

Exercise 6B

Complete the division facts.

1. $14 \div 2 = 7$

2. $16 \div 8 = 2$

3. $21 \div 3 = 7$

4. $45 \div 9 = 5$

5. $32 \div 4 = 8$

6. $35 \div 5 = 7$

7. $40 \div 4 = 10$

8. $9 \div 3 = 3$

9. $24 \div 6 = 4$

10. $63 \div 7 = 9$

11. $28 \div 4 = 7$

12. $80 \div 10 = 8$

13. $45 \div 9 = 5$

14. $7 \div 7 = 1$

15. $24 \div 8 = 3$

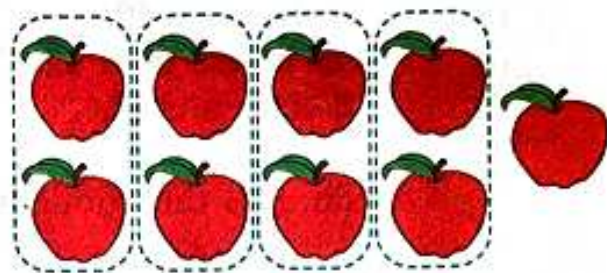
DIVISION WITH REMAINDER

Example 3: Share 9 apples among 4 children equally. How many apples does each child get?

Solution: Each child gets 2 apples and 1 apple is left over.

In this sum,

- 4 is the **divisor**,
- 9 is the **dividend**,
- 2 is the **quotient** and
- 1 is the **remainder**.



$$\begin{array}{r} 2 \\ 4 \overline{)9} \\ \underline{-8} \\ 1 \end{array}$$

Quotient

Remainder

Think

4 twos are 8, 8 is less than 9.
4 threes are 12, 12 is more than 9.
So, 2 is the quotient.

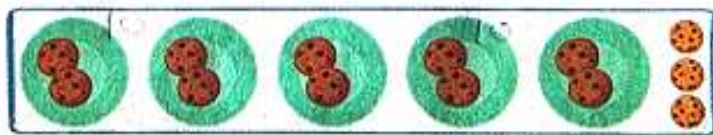
Example 4: There are 13 cookies and 5 plates.

How many cookies are kept on each plate when divided equally?

How many cookies are left over?

Solution: $13 = 5 \text{ times } 2 + 3$

Each plate has 2 cookies and 3 cookies are left over.



$$\begin{array}{r} 2 \\ 5 \overline{)13} \\ \underline{-10} \\ 3 \end{array}$$

Think

5 twos are 10,
10 is less than 13.
5 threes are 15,
15 is more than 13.
So, the quotient is 2

Example 5: There are 42 flowering plants to be planted equally in 5 flower beds.

How many plants are there in each flower bed?

How many plants are left over?

Solution:

$$\begin{array}{r} 8 \\ 5 \overline{)42} \\ \underline{-40} \\ 2 \end{array}$$

Think

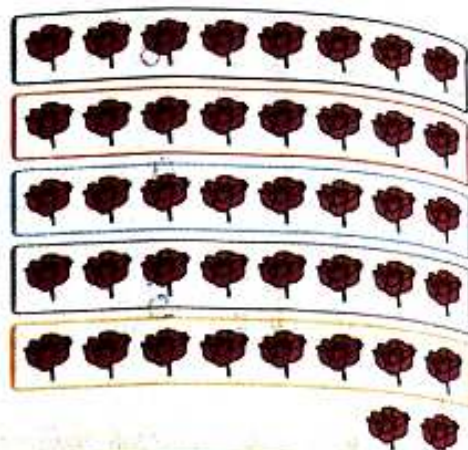
8 fives are 40,
40 is less than 42.
8 sixes are 48,
48 is more than 42.
So, 8 is the quotient

We use multiplication table to carry out division.



$$42 = 8 \text{ times } 5 + 2$$

Each flower bed has 8 plants and 2 plants are left over.



Exercise 6C

1. Divide and find the quotient and the remainder.

(a)
$$\begin{array}{r} 5 \\ 3 \overline{)16} \\ \underline{-15} \\ 01 \end{array}$$

(b)
$$\begin{array}{r} 6 \\ 7 \overline{)37} \\ \underline{-36} \\ 01 \end{array}$$

(c)
$$\begin{array}{r} 4 \\ 6 \overline{)26} \\ \underline{-24} \\ 02 \end{array}$$

(d)
$$\begin{array}{r} 7 \\ 8 \overline{)63} \\ \underline{-56} \\ 07 \end{array}$$

2. Find the quotient and the remainder.

(a)
$$\begin{array}{r} 5 \\ 5 \overline{)28} \\ \underline{-25} \\ 03 \end{array}$$

(b)
$$\begin{array}{r} 8 \\ 2 \overline{)17} \\ \underline{-16} \\ 01 \end{array}$$

(c)
$$\begin{array}{r} 8 \\ 9 \overline{)75} \\ \underline{-72} \\ 03 \end{array}$$

(d)
$$\begin{array}{r} 7 \\ 8 \overline{)58} \\ \underline{-56} \\ 02 \end{array}$$

(e)
$$\begin{array}{r} 7 \\ 7 \overline{)51} \\ \underline{-49} \\ 02 \end{array}$$

(f)
$$\begin{array}{r} 7 \\ 8 \overline{)61} \\ \underline{-56} \\ 05 \end{array}$$

(g)
$$\begin{array}{r} 8 \\ 4 \overline{)35} \\ \underline{-32} \\ 03 \end{array}$$

(h)
$$\begin{array}{r} 6 \\ 3 \overline{)19} \\ \underline{-18} \\ 01 \end{array}$$

WORD PROBLEMS

Observe the following carefully.

Example 6: Mother has 15 buttons. There are 5 buttons on each card. How many cards of buttons does she have?

Solution: She has 3 cards of buttons.



Working

$$\begin{array}{r} 3 \\ 5 \overline{) 15} \\ \underline{-15} \\ 0 \end{array}$$

Example 7: Radha had 51 umbrellas. She divided them into groups of 10 each. How many groups did she have? How many umbrellas remained?



Solution: She has 5 groups and 1 umbrella remained.

Working

$$\begin{array}{r} 5 \\ 10 \overline{) 51} \\ \underline{-50} \\ 1 \end{array}$$

Exercise 6D

Solve the following word problems.

1. There are 20 children in Shekhar's class. Groups of 5 children each were formed to carry out a group activity. How many groups were formed?



Workspace

$20 \div 5 = 4$
Thus, 4 groups are formed.



2. There are 30 people going on a picnic. If 5 people ride in each car, how many cars are needed?

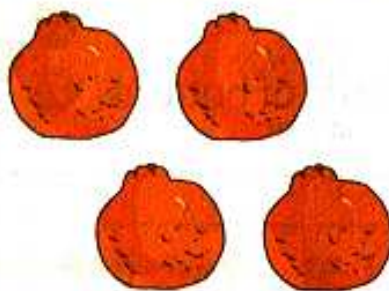
$30 \div 5 = 6$
Thus, 6 cars are needed.



3. In a parade, there are 28 camels marching in 4 equal rows. How many camels are there in each row?

$28 \div 4 = 7$
Thus, 7 camels are there in each row.

4. How many oranges do you buy for 36 rupees if each orange costs 6 rupees?



$36 \div 6 = 6$
Thus, each orange costs 6 rupees.



5. Arnav and his four friends visit the zoo. They pay ₹45 as the entry fee. How much does 1 ticket cost?

$₹45 \div 5 = 9$
Each ticket costs ₹9.

6. There are 72 seats in a movie hall. If each row has 9 seats, then how many rows of seats are there?



$72 \div 9 = 8$
Thus, 8 rows of seats are there.



7. Ashi can make 8 necklaces in 56 minutes. If each necklace requires the same amount of time, how many minutes does it take her to make one necklace?

$56 \div 8 = 7$
Thus, each necklace takes time of 7 min.

Challenge!

21st CS

1. There are 34 pencils in a box. Mrs Brown distributes 8 pencils to each of her children. How many children does she have and how many pencils are left over?



$$\begin{array}{r} 4 \\ 8 \overline{) 34} \\ \underline{- 32} \\ 02 \end{array}$$

Each child will get 4 pencils and 2 are left.

2. 68 books need to be arranged equally in the 7 shelves of a bookcase. How many books will fit in each shelf and how many are left over?



$$\begin{array}{r} 9 \\ 7 \overline{) 68} \\ \underline{- 63} \\ 05 \end{array}$$

9 books will fit in each shelf 5 are left over.

3. Danny's mother gave him 20 toffees but he did not eat all of them by himself. He eats 4 of them and shares the rest equally with 6 children around him. How many toffees does each child receive? How many toffees are left over?



Total toffees = 20

Toffees danny eats = 4

Toffees left = $20 - 4 = 16$

Each child receives =

$$\begin{array}{r} 2 \\ 8 \overline{) 16} \\ \underline{- 16} \\ 0 \end{array}$$

Toffees left over = 0

What moral value of Danny can you learn from this? [Value Based Question]

Mental Maths

21st CS

Solve and write the correct number in the boxes.

1. $32 \div 4 = 8$

3. $63 \div 9 = 7$

5. 5 less than $40 \div 8$ is 5

$$\begin{array}{r} 5 - 5 \\ 0 \end{array}$$

2. $4 \text{ tens} \div 8 = 5$ $40 \div 8$

4. $40 \div 8 = 5$

6. 10 more than $42 \div 6$ is 17

$$\begin{array}{r} 10 + 7 \\ 17 \end{array}$$

Chapter Test

MCQs

Tick (✓) the correct answer. (Q. 1 to Q. 6)

1. Which of the following division statements is not true?

- (a) $18 \div 6 = 3$ (b) $48 \div 8 = 6$ (c) $72 \div 9 = 7$ (d) $50 \div 5 = 10$

2. Which of the following division statements has an answer less than 4?

- (a) $16 \div 2$ (b) $28 \div 7$ (c) $45 \div 9$ (d) $30 \div 10$

3. How many 10s in 8 tens?

- (a) 4 (b) 8 (c) 10 (d) 18

4. I am the difference between $54 \div 6$ and $24 \div 4$? What number am I?

- (a) 0 (b) 6 (c) 3 (d) 5

5. What number when divided by 5 leaves a remainder 2?

- (a) 22 (b) 43 (c) 34 (d) 15

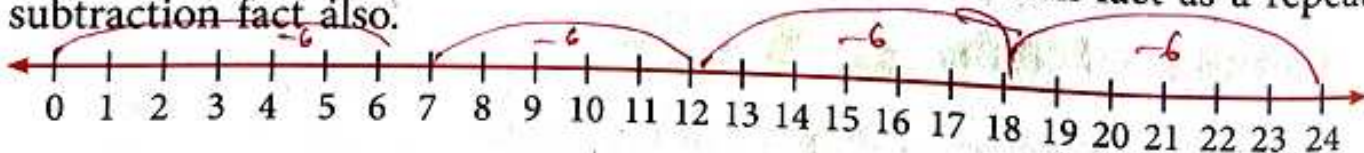
6. Mamta has 51 oranges. She packs an equal number of oranges in 7 boxes and gives the remaining oranges to her daughter. How many oranges does she give to her daughter?

- (a) 1 (b) 3 (c) 0 (d) 2

7. Divide using the long division method. Write the quotient and remainder.

(a) $7 \overline{)39}$ Quotient = 5 (b) $9 \overline{)60}$ Quotient = 6
 $\underline{-35}$ Remainder = 4 $\underline{-54}$ Remainder = 6
4 06

8. Divide 24 by 6 using the number line. Write this division fact as a repeated subtraction fact also.



Challenge!

21st CS

1. Write true or false against each number sentence.

(a) $81 \div 9 > 80 \div 10$

True

(b) $70 \div 7 \neq 2 \times 5$

False

2. What number divided by 7 gives an answer of 9?

63

Worksheet

Use two numbers from the boxes to complete each of the following division sentences.

42 3 54 9

$$54 \div 9 = 6$$

8 16 2 32

$$32 \div 4 = 8$$

45 9 3 5

$$45 \div 9 = 5$$

2 18 9 6

$$18 \div 3 = 6$$

2 6 14 7

$$42 \div 7 = 6$$

36 9 4 6

$$36 \div 4 = 9$$

Activity (Teacher to Assist)



EL



Roll and Colour

Two or more children can play this game.

Roll the dice. The number that is shown on the dice is the answer to a division problem on the given table. Colour a box to show the division sentence. The first child to colour four boxes in a row wins the game.



$21 \div 7$	$15 \div 3$	$10 \div 5$	$16 \div 4$	$36 \div 6$	$7 \div 7$
$45 \div 9$	$42 \div 7$	$24 \div 6$	$9 \div 9$	$18 \div 9$	$12 \div 4$
$54 \div 9$	$2 \div 2$	$30 \div 6$	$32 \div 8$	$24 \div 8$	$35 \div 7$
$1 \div 1$	$16 \div 8$	$48 \div 8$	$36 \div 9$	$9 \div 3$	$40 \div 5$
$4 \div 2$	$60 \div 10$	$10 \div 5$	$8 \div 8$	$24 \div 6$	$18 \div 6$
$28 \div 7$	$6 \div 2$	$10 \div 10$	$14 \div 7$	$20 \div 4$	$24 \div 4$