



**CLICK HERE TO ACTIVATE**

**LESSON**  
PART 5



# 5

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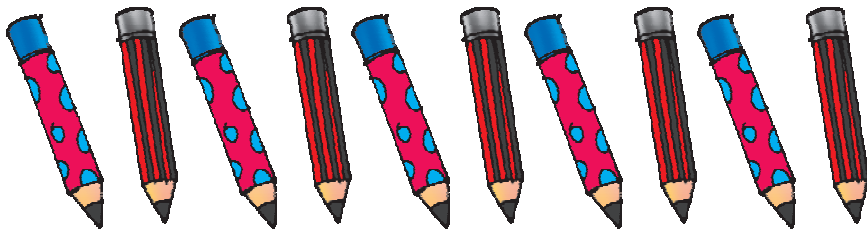


## DIVISION

### READY ... STEADY

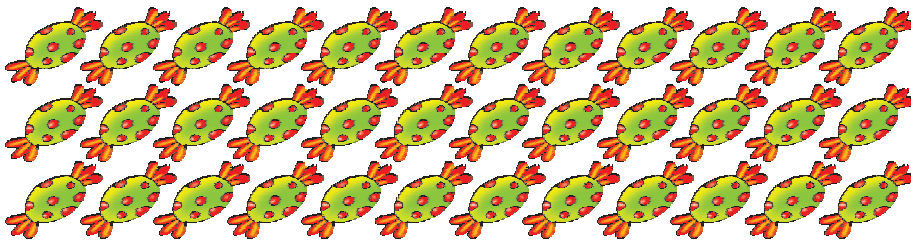
Divide the following.

10 pencils among 5 children



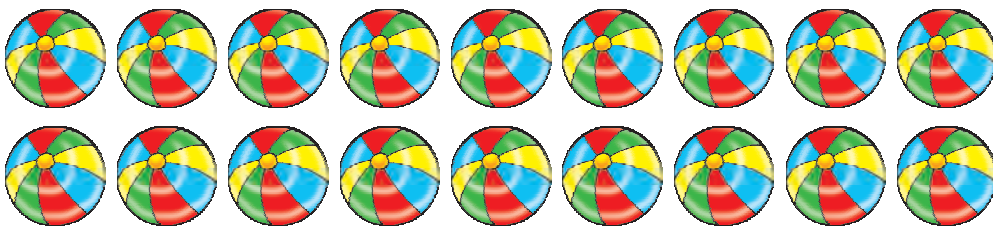
$$10 \div 5 = \bigcirc$$

36 toffees among 6 children



$$36 \div 6 = \bigcirc$$

18 balls between 2 children



$$18 \div 2 = \bigcirc$$

16 ice-cream cones among 4 children



$$16 \div 4 = \bigcirc$$

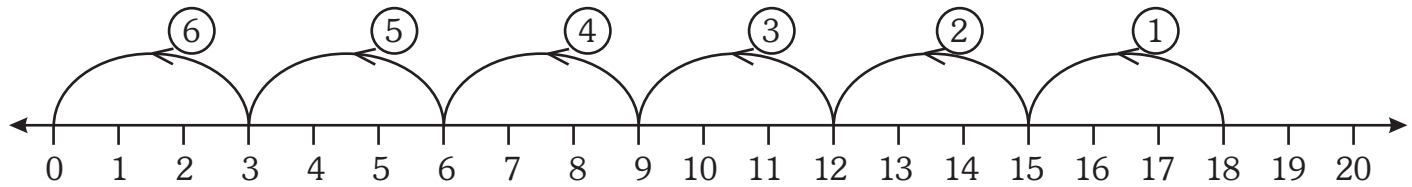
Division is the reverse of multiplication. *Division* means *distributing equally*. Division is actually repeated subtraction of the same number. If you know the multiplication tables well, division is not difficult. To divide, we should start with the whole number and split it into equal parts.  $\div$  is the symbol used for division ( $\div$  is read as divided by).

### **DIVISION ON THE NUMBER LINE**

Like all other operations, division can also be shown on a number line.

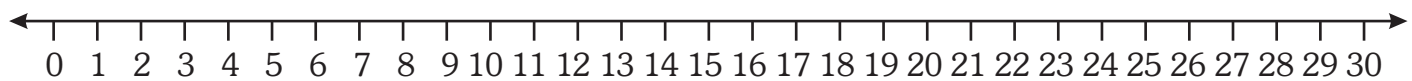
Look at this.

To divide 18 by 3, you start from 18 and take as many steps of 3 as possible till you reach zero.

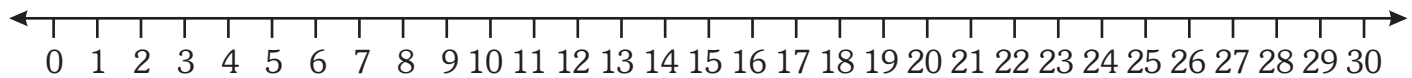


Here you have taken 6 steps. So,  $18 \div 3 = 6$

**Divide the following using the number line.**

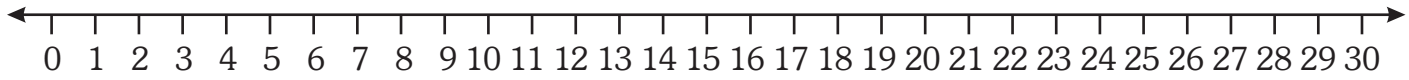


$$30 \div 6 = \boxed{\phantom{00}}$$

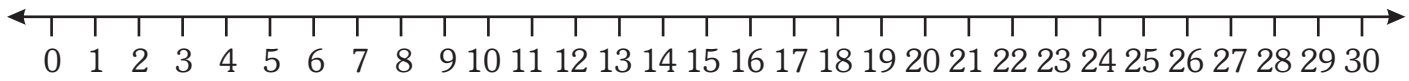


$$24 \div 4 = \boxed{\phantom{00}}$$

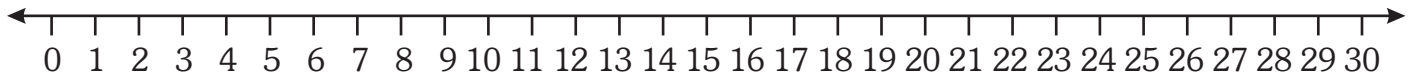




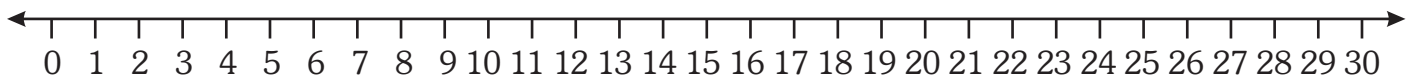
$$20 \div 4 = \boxed{\phantom{00}}$$



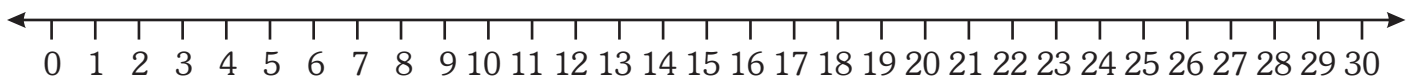
$$18 \div 2 = \boxed{\phantom{00}}$$



$$25 \div 5 = \boxed{\phantom{00}}$$



$$15 \div 3 = \boxed{\phantom{00}}$$



$$27 \div 3 = \boxed{\phantom{00}}$$

## DIVISION FACTS

❖ Any number divided by 1 always equals to the number itself.

$4 \div 1 = 4$

$5 \div 1 = 5$

$18 \div 1 = 18$

❖ Any number divided by the number itself always equals to 1.

$6 \div 6 = 1$

$11 \div 11 = 1$

$19 \div 19 = 1$

❖ Zero divided by any number always gives zero.

$0 \div 3 = 0$

$0 \div 8 = 0$

$0 \div 20 = 0$

**Do the divisions using division facts.**

$6 \div 1 = \square$

$8 \div 1 = \square$

$3 \div 1 = \square$

$24 \div 1 = \square$

$28 \div 1 = \square$

$47 \div 1 = \square$

$82 \div 1 = \square$

$2 \div 2 = \square$

$4 \div 4 = \square$

$9 \div 9 = \square$

$18 \div 18 = \square$

$15 \div 15 = \square$

$26 \div 26 = \square$

$52 \div 52 = \square$

$0 \div 2 = \square$

$0 \div 6 = \square$

$0 \div 7 = \square$

$0 \div 12 = \square$

$0 \div 18 = \square$

$0 \div 19 = \square$

$0 \div 24 = \square$

## RELATION BETWEEN MULTIPLICATION AND DIVISION



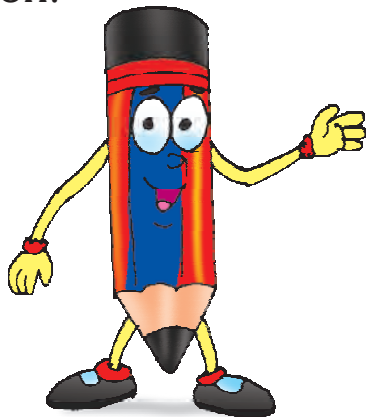
12 mangoes

4 times 3 mangoes  
 $4 \times 3 = 12$  mangoes

or

12 mangoes divided in 4 rows  
 $12 \div 4 = 3$

Multiplication is the reverse of division. We use multiplication tables for division.



Division facts :

$6 \times 3 = 18$  (Multiplication)  
 $18 \div 3 = 6$  (Division)  
 $18 \div 6 = 3$  (Division)

Division facts :

$7 \times 3 = 21$  (Multiplication)  
 $21 \div 7 = 3$  (Division)  
 $21 \div 3 = 7$  (Division)

**Write the division facts for given multiplications.**

$2 \times 8 = 16$

$3 \times 9 = 27$

$8 \times 3 = 24$

$5 \times 7 = 35$

## LONG DIVISION

There is one more method of division known as long division. We write it as given alongside. We read it '12 divided by 4' or  $12 \div 4$ .

Where,

*Dividend* is the number that is being divided.

*Divisor* is the number that divides another number.

*Quotient* is the answer found by dividing one number by another.

*Remainder* is the number left after division.

**Example :** Divide 18 by 3.

**Step 1 :** Arrange the numbers as shown.

**Step 2 :** Multiplication table tells that there are 6 threes in 18. ( $6 \times 3 = 18$ ). So write 6 in place of the quotient above the dividend.

**Step 3 :** The product of 3 (divisor) and 6 (quotient) is 18. We write it below the dividend.

**Step 4 :** Subtract the product from the dividend. Remainder is zero.

$$\begin{array}{r} 3 \leftarrow \text{Quotient} \\ \text{Divisor } 4 \overline{) 12} \leftarrow \text{Dividend} \\ \underline{- 12} \\ 0 \leftarrow \text{Remainder} \end{array}$$

$$\begin{array}{r} 6 \leftarrow \text{Quotient} \\ \text{Divisor } 3 \overline{) 18} \leftarrow \text{Dividend} \\ \underline{- 18} \\ 0 \leftarrow \text{Remainder} \end{array}$$

**Divide the following.**

$$2 \overline{) 22}$$

$$5 \overline{) 35}$$

$$3 \overline{) 15}$$

$$4 \overline{) 36}$$

$$3 \overline{) 27}$$

$$3 \overline{) 21}$$

$$2 \overline{) 16}$$

$$3 \overline{) 30}$$

$$4 \overline{) 16}$$

$$2 \overline{) 6}$$

$$9 \overline{) 18}$$

$$4 \overline{) 32}$$

$$5 \overline{) 10}$$

$$8 \overline{) 48}$$

$$6 \overline{) 30}$$

$$2 \overline{) 4}$$

$$4 \overline{) 8}$$

$$6 \overline{) 12}$$

$$7 \overline{) 28}$$

$$9 \overline{) 54}$$

$$7 \overline{) 56}$$

$$8 \overline{) 64}$$

$$6 \overline{) 36}$$

$$5 \overline{) 45}$$



## DIVISION OF A 2-DIGIT NUMBER BY A 1-DIGIT NUMBER

**Example :** Divide 24 by 2.

**Step 1 :** Look at the digit in the tens place.  
(Here it is 2)

**Step 2 :** Multiplication table tells that there are 2 ones in 2 ( $2 \times 1 = 2$ ).  
So, write 1 in place of the quotient.  
Draw a line and subtract. The remainder is 0.

**Step 3 :** Now bring down the digit in ones place (Here it is 4).

**Step 4 :** Multiplication table tells that there are 2 twos in 4 ( $2 \times 2 = 4$ ).  
So, write 2 in the quotient. The answer you get for that multiplication is 4. Write 4 below 04 and subtract.

Answer is '0'. It is the remainder.

Thus  $24 \div 2 = 12$ .

$$\begin{array}{r} 12 \\ 2 \overline{) 24} \\ \underline{- 2} \downarrow \\ 04 \\ \underline{- 4} \\ 0 \end{array}$$

**Divide the following.**

$$2 \overline{) 28}$$

$$4 \overline{) 48}$$

$$3 \overline{) 36}$$

$$2 \overline{) 26}$$

$$2 \overline{) 44}$$

$$3 \overline{) 69}$$

$$4 \overline{) 84}$$

$$5 \overline{) 55}$$

Look at one more example of division.

**Example :** Divide 45 by 3.

**Step 1 :** Look at the digit in the tens place.

How many groups of 3 are there ? (1)

**Step 2 :** Write 1 on top of 4 above the line in the quotient and subtract 3 from 4 and you get a remainder of 1 ten.

**Step 3 :** Bring down the ones digit. (There are 5 ones). Now you have 15 ones.

**Step 4 :** Multiplication table tells that there are 5 groups of 3 in 15.

**Step 5 :** Write 5 on top in quotient and write the answer that you get for that multiplication below 15 and subtract.

Thus, quotient is 15 and remainder is '0'.

$$\begin{array}{r} 15 \\ 3 \overline{) 45} \\ \underline{- 3} \downarrow \\ 15 \\ \underline{- 15} \\ 0 \end{array}$$

**Divide the following.**

$$2 \overline{) 36}$$

$$2 \overline{) 34}$$

$$4 \overline{) 52}$$

$$5 \overline{) 65}$$

$$3 \overline{) 51}$$

$$3 \overline{) 48}$$

$$4 \overline{) 64}$$

$$6 \overline{) 72}$$

## CONCEPT OF REMAINDER

In a class there are 21 students.

For a group discussion they are divided into two teams.



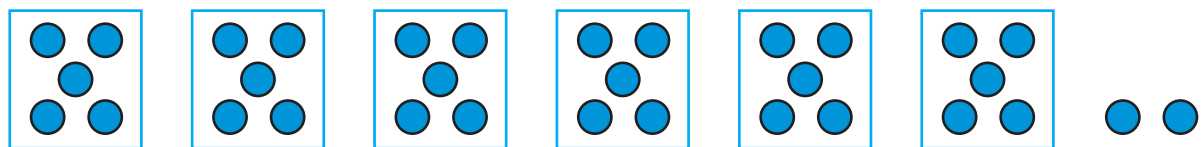
We find 1 child is left behind. If he is taken to any one team, there will no longer be an equal number of children in both the teams.

Since 1 child cannot be divided equally amongst two teams, we say that 1 is remainder in this division and 10 is quotient.

Similarly  $32 \div 5 =$

Upto 32, there are 6 groups of 5 numbers.

Hence, quotient is 6 and remainder is 2.



**Find the quotient and remainder.**

$$26 \div 5 = \square \quad \bigcirc$$

$$11 \div 2 = \square \quad \bigcirc$$

$$15 \div 4 = \square \quad \bigcirc$$

$$14 \div 3 = \square \quad \bigcirc$$

$$25 \div 4 = \square \quad \bigcirc$$

$$17 \div 3 = \square \quad \bigcirc$$

## DIVISION OF A 2-DIGIT NUMBER BY A 1-DIGIT NUMBER WITH REMAINDER

**Example :** Divide 35 by 2.

**Step 1 :** Look at the digit in the tens place.  
(Here it is 3)

**Step 2 :** Multiplication table tells that there are one 2s in 3. Write 1 on top of 3 and subtract 2 from 3 and get a remainder of 1 ten.

**Step 3 :** Bring down the ones digit. There are 5 ones. Now you have 15 ones.

**Step 4 :** Multiplication table tells that there are 7 groups of 2 in 15.

**Step 5 :** Write 7 on top and write 14 below 15 and subtract.  
 $15 - 14 = 1$ . The remainder is 1.

$$\begin{array}{r} 17 \\ 2 \overline{) 35} \\ \underline{- 2} \downarrow \\ 15 \\ \underline{- 14} \\ 1 \end{array}$$

**Verification :** Dividend = Quotient  $\times$  Divisor + Remainder

$$\text{Quotient} = 17$$

$$\text{Divisor} = 2$$

$$\text{Remainder} = 1$$

$$\text{Dividend} = 17 \times 2 + 1$$

$$= 34 + 1$$

$$= 35$$

So, the division is correct.

**Divide the following.**

$$3 \overline{) 25}$$

$$6 \overline{) 39}$$

$$5 \overline{) 57}$$

$$2 \overline{) 19}$$

$$4 \overline{) 33}$$

$$5 \overline{) 32}$$

$$7 \overline{) 50}$$

$$8 \overline{) 67}$$

$$9 \overline{) 37}$$

$$2 \overline{) 25}$$

$$3 \overline{) 32}$$

$$7 \overline{) 60}$$

$$9 \overline{) 88}$$

$$4 \overline{) 63}$$

$$8 \overline{) 50}$$

$$6 \overline{) 45}$$

$$10 \overline{) 67}$$

$$5 \overline{) 69}$$

$$2 \overline{) 89}$$

$$5 \overline{) 38}$$

$$6 \overline{) 70}$$

$$3 \overline{) 40}$$

$$4 \overline{) 58}$$

$$7 \overline{) 79}$$

## DIVISION OF A 3-DIGIT NUMBER BY A 1-DIGIT NUMBER

**Example :** Divide 268 by 2.

**Step 1 :** Look at the digit 2 in the hundreds place of the dividend.

**Step 2 :** Multiplication table tells that there are one twos in 2. Write 1 on the top of 2 and subtract the product from the dividend in the hundreds place ( $2 - 2 = 0$ ).

**Step 3 :** Now, look at the digit 6 in the tens place of the dividend.

**Step 4 :** Multiplication table tells that there are three twos in 6. Write 3 on the top of 6 and subtract the product from the dividend in the tens place ( $6 - 6 = 0$ ).

**Step 5 :** Now, look at the digit 8 in the ones place of the dividend.

**Step 6 :** Multiplication table tells that there are four twos in 8 and subtract the product from the dividend in the ones place. ( $8 - 8 = 0$ )  
The remainder is zero.

$$\begin{array}{r} 134 \\ 2 \overline{) 268} \\ \underline{2} \phantom{0} \\ 06 \phantom{0} \\ \underline{-6} \phantom{0} \\ 08 \\ \underline{-8} \\ 0 \end{array}$$

**Divide the following.**

$$2 \overline{) 482}$$

$$3 \overline{) 369}$$

$$4 \overline{) 448}$$

$$5 \overline{) 555}$$

$$7 \overline{)924}$$

$$6 \overline{)804}$$

$$5 \overline{)830}$$

$$2 \overline{)362}$$

$$4 \overline{)580}$$

$$3 \overline{)564}$$

$$7 \overline{)497}$$

$$5 \overline{)330}$$

$$2 \overline{)468}$$

$$2 \overline{)662}$$

$$4 \overline{)592}$$

$$2 \overline{)830}$$

$$3 \overline{)810}$$

$$4 \overline{)980}$$

$$5 \overline{)645}$$

$$3 \overline{)345}$$

$$4 \overline{)280}$$

$$6 \overline{)636}$$

$$7 \overline{)714}$$

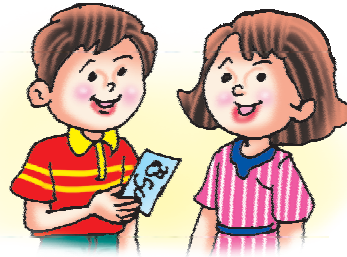
$$8 \overline{)888}$$

## WORD PROBLEMS

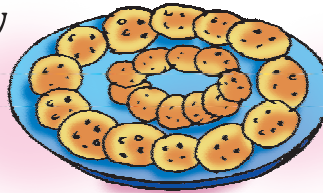
There are 36 flowers to be arranged in 6 vases. How many flowers will be arranged in each vase ?



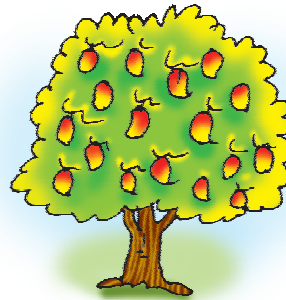
₹ 50 had to be shared by a brother and sister. How much money did each get ?



Priya had 75 biscuits that she wanted to give to 5 friends. How many did each of them get ?



There are 64 mangoes on a tree. They have to be shared equally among 4 children. How many mangoes will each child get ?



There are 190 oranges in a basket to be equally put into 5 bags. How many oranges are there in each bag ?





# WORKSHEET

Divide and complete the table.

	Dividend	Divisor	Quotient	Remainder
$16 \div 2$				
$37 \div 3$				
$42 \div 4$				
$65 \div 5$				
$40 \div 6$				
$238 \div 8$				
$446 \div 5$				

Divide.

$$6 \overline{) 24}$$

$$5 \overline{) 30}$$

$$3 \overline{) 24}$$

$$2 \overline{) 18}$$

$$10 \overline{) 90}$$

$$2 \overline{) 30}$$

$$3 \overline{) 146}$$

$$7 \overline{) 784}$$

