

9

Division of Bigger Numbers



Terms of Division

Division means sharing or distributing a group of things in equal manner. Division is another name of **repeated subtraction**. The number being divided is known as **dividend**. The number by which another number is to be divided is known as **divisor**. Result of division is known as **quotient**. The number left over after division, is known **remainder**.

For Example: In $54 \div 6 = 9$, 54 is dividend, 6 is divisor, 9 is quotient and 0 is remainder.

$$54 \div 6 = 9 \quad \times \quad 6 \quad + \quad 0 \quad = \quad 54$$

↓
↓
↓
↓

Quotient Divisor Remainder Dividend

		9	
6	)	54	
-		54	
		0	
			0

Quotient

Remainder



Facts to Know

- ❖ Division is an equal distribution. Division is the inverse of multiplication.



Division by Short and Long Method

Short Method

$$30 \div 5$$

$$30 - 5 - 5 - 5 - 5 - 5 = 0$$

$$30 \div 5 = 6$$

Long Method

		6	
5	)	30	
-		30	
		0	
			0

Quotient

Remainder

$$30 \div 5 = 6$$





Division with Remainder by short and Long Method

Short Method

$$36 \div 7$$

$$36 - 7 - 7 - 7 - 7 - 7 - 7 - 7 = 1$$

$36 \div 7 =$ Quotient 5 and
Remainder 1

Long Method

		5		
	7	)	3	6
	-		3	5
				1

Quotient

Remainder



Exercise 9.1

A. Express each of the following repeated subtraction as a division fact and fill in the blanks.

1. $15 - 3 - 3 - 3 - 3 - 3 = 0$ \longrightarrow $15 \div 3 = 5$ Dividend is

2. $12 - 3 - 3 - 3 - 3 = 0$ \longrightarrow Quotient is

3. $20 - 5 - 5 - 5 - 5 = 0$ \longrightarrow Divisor is

4. $18 - 6 - 6 - 6 = 0$ \longrightarrow Dividend is

B. Divide the following.

1.

	9	)	8	1

2.

	7	)	5	6

3.

	8	)	7	2





C. Divide and find remainder.

1.

	7	)	5	8

Remainder

2.

	6	)	4	3

Remainder

3.

	9	)	7	5

Remainder



Division of 2-digit Number by 1-digit Number

Example I : Divide 84 by 4.

Solution :

Step 1 : Divide 8 by 4, i.e. $8 \div 4 = 2$.
Write 2 in tens column and in the result $8 - 8 = 0$.

Step 2 : Bring down the 4 and then $4 \div 4 = 1$.
Write 1 in ones column and in the result $4 - 4 = 0$.
The answer is 21.

			Quotient		
			2	1	
	4	)	8	4	
	-		8	↓	
			0	4	
			-	4	
			0	0	



Division of 3-digit Number by 1-digit Number

Example II : Divide 975 by 3.

Solution :

Step 1 : Divide 9 by 3, i.e. $9 \div 3 = 3$.
Write 3 in hundreds column and in the result $9 - 9 = 0$.
Divide 7 by 3, i.e. $7 \div 3 = 2$ ten and 1 tens are left.

			Quotient			
			3	2	5	
	3	)	9	7	5	
	-		9	↓	↓	
			0	7	↓	
			-	6	↓	
			1	5	↓	
			-	1	5	
			0	0	0	





Write 2 in the tens column and change 1 tens into ones.

i.e. 1 tens = 10 ones.

10 ones + 5 ones = 15 ones

Bringing down 15 ones, $15 \div 3 = 5$.

Write 5 in ones column and in the result $15 - 15 = 0$.

The answer is 325.



Division with Remainder

Example III: Divide 86 by 6.

Solution :

Step 1 : $8 \div 6 = 1$ and 2 tens are left.

Write 1 in tens column and in the result $8 - 6 = 2$.

Step 2 : Now change 2 tens into 20 ones.
i.e. 20 ones + 6 ones = 26 ones.

Bring down 26 and $26 \div 6 = 4$ and 2 left as remainder.

			Quotient	
			1	4
	6	)	8	6
	-		6	↓
			2	6
	-		2	4
				2
			Remainder	

Example IV : Chetan has 63 pencils. He wants to distribute them equally among 3 children. How many pencils will each child get?

Solution :

Step 1 : Divide 6 by 3 i.e. $6 \div 3 = 2$

Write 2 in tens column and in the result $6 - 6 = 0$

Step 2 : Bring down the 3 and then $3 \div 3 = 1$
Write 1 in ones column and in the result $3 - 3 = 0$

The answer is 21.

			2	1
	3	)	6	3
	-		6	↓
			0	3
	-			3
				0
			Remainder	



Exercise 9.2



A. Divide the following.

1.

	6	)	5	4

2.

	2	)	8	6

3.

	8	)	9	6

B. Solve the following.

1.

	5	)	5	2	5

2.

	3	)	6	7	2

3.

	7	)	6	7	9

C. Divide and find quotient and remainder in each case.

1.

	6	)	2	7	1

Q = R =

2.

	8	)	4	9	2

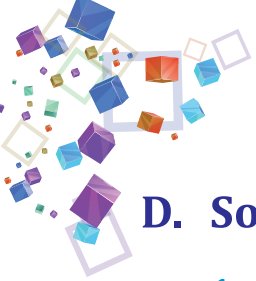
Q = R =

3.

	4	)	2	7	8

Q = R =

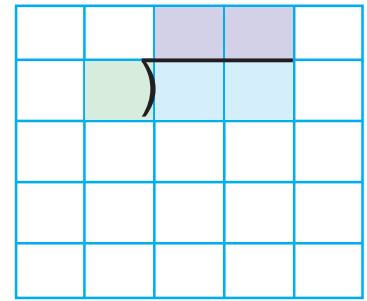




D. Solve the following word problems.

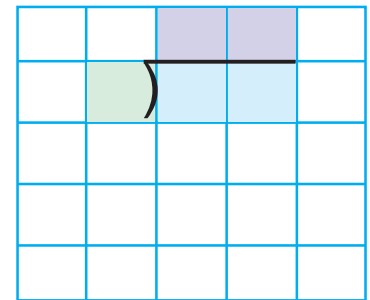
1. A shopkeeper arranged 40 sweets in 8 plates. How many sweets did he put into each plate?

Answer: sweets



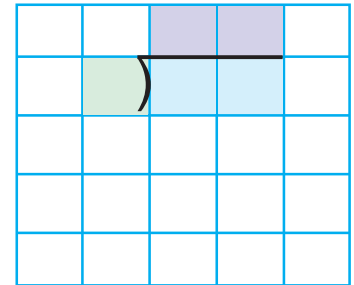
2. Divide 54 balls among 6 boys equally. How many will each boy get?

Answer: balls



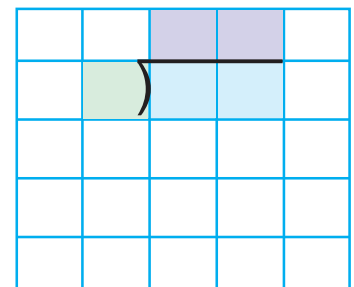
3. Suman has 81 pencils. He distributes these pencils equally among 9 children. How many pencils shall each get ?

Answer: pencils



4. Mohit bought 84 oranges. He gave 6 oranges to each girl. How many girls got oranges?

Answer: girls



Points to Remember



- ❖ The number being divided is known as dividend.
- ❖ The number by which another number is to be divided is known as divisor.
- ❖ Result of division is known as quotient.
- ❖ The number left over after division, is known as remainder.
- ❖ Division is the inverse of multiplication.





EXERCISE

A. Multiple Choice Questions (MCQs)

Tick (✓) the correct option :

- In $645 \div 5 = 129$, 129 is

(i) divisor	<input type="checkbox"/>	(ii) quotient	<input type="checkbox"/>
(iii) dividend	<input type="checkbox"/>	(iv) remainder	<input type="checkbox"/>
- The number being divided, is known as

(i) dividend	<input type="checkbox"/>	(ii) division	<input type="checkbox"/>
(iii) remainder	<input type="checkbox"/>	(iv) none of these	<input type="checkbox"/>
- If 51 chocolates are distributed in 3 boys, how many chocolates will each boy get?

(i) 17	<input type="checkbox"/>	(ii) 3	<input type="checkbox"/>
(iii) 51	<input type="checkbox"/>	(iv) 16	<input type="checkbox"/>
- One fourth part of 20 is

(i) 8	<input type="checkbox"/>	(ii) 5	<input type="checkbox"/>
(iii) 4	<input type="checkbox"/>	(iv) 20	<input type="checkbox"/>

B. Divide and find the remainder.

- $7 \overline{) 86}$
- $5 \overline{) 66}$
- $6 \overline{) 667}$
- $4 \overline{) 246}$

C. Solve the following word problems.

- The mother has 90 toys. She wants to distribute them among 6 children. How many toys will each child get?
- There are 7 days in a week. How many weeks are there in a year of 365 days?
- 9 students can sit in a mini van. How many mini vans, will be required for 486 students?
- There are 12 birds in a row. How many rows will be there for 144 birds?





HOTS

Divide 216 by 6 and check this relation :
divisor x quotient + remainder = dividend.
Is it correct?

Lab Activity



Objective : Pluck all the apples and divide equally among all the boys.

Materials Required : Paper and pencil

Activities:

- ❖ Pluck all the apples and write. Number of apples =
- ❖ Count number of boys and write. Number of boys =
- ❖ Divide number of apples by the number of boys.
..... ÷ =
- ❖ So, each boy will get apples.