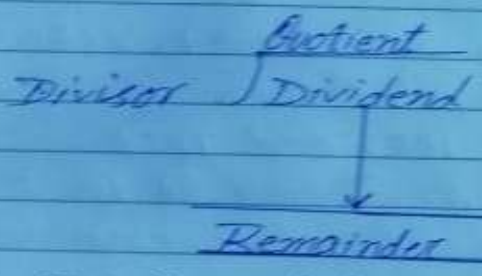


# ASSIGNMENT

## CLASS - 4<sup>th</sup> MATHS

### DIVISION

Division means repeated subtraction. It means subtraction the same number several times. In a division sum, the number which we divide is called the "Dividend". The number by which we divide it called the "Divisor". The answer which comes at last is called the "Quotient" and the left over number at the end is called the "Remainder".



These are connected as:

Dividend = Divisor  $\times$  Quotient, when the remainder = 0

Dividend = (Divisor  $\times$  Quotient) + Remainder

Example: find  $36 \div 6$

Solution:

$$\begin{array}{r} 6 \\ 6 \overline{) 36} \\ \underline{-36} \\ 0 \end{array}$$

$$\therefore 36 \div 6 = 6$$

Here dividend = 36, Quotient = 6  
divisor = 6, remainder = 0

Example: find  $74 \div 9$

Solution:

$$\begin{array}{r} 8 \\ 9 \overline{) 74} \\ \underline{-72} \\ 02 \end{array}$$

Observe that  $74 = 9 \times 8 + 2$ .

Dividend = (Divisor  $\times$  Quotient) + remainder

### Properties of Division

- 1- If a number is divided by 1, the Quotient is number itself and there is no remainder.  
Example:  $8 \div 1 = 8$ ,  $540 \div 1 = 540$ ,  $8641 \div 1 = 8641$
- 2- If Zero (0) is Divided by any number, the Quotient will be Zero and there will be no remainder.  
Example:  $0 \div 215 = 0$ ,  $0 \div 612 = 0$ ,  $0 \div 2541 = 2541$
- 3- If any number other than zero is divided by itself the Quotient will be 1, and there will be no remainder.  
Example:  $15 \div 15 = 1$ ,  $174 \div 174 = 1$ ,  $2640 \div 2640 = 1$ .
- 4- Division by Zero is not Possible.

### Division by 10, 100, and 1000

Division by 10: If the Divisor is 10, the last digit of the dividend will be the remainder and the number formed by the remaining digits of the dividend will be Quotient.

Example:  $32045 \div 10$

Solution:

$$\begin{array}{r}
 3204 \\
 10 \overline{) 32045} \\
 \underline{-30} \phantom{0} \\
 20 \phantom{0} \\
 \underline{-20} \phantom{0} \\
 0045 \\
 \underline{-40} \\
 5
 \end{array}$$

Quotient = 3204

Remainder = 5

We observe that when we divide 32045 by 10, the remainder is the ones digit and the Quotient is formed by the other digits of the number.

Division by 100:

If the divisor is 100, the number formed by the last two digits of the Dividend will be the remainder and the number formed by the remaining digits of the dividend will be the Quotient.

Example: Divide  $6843 \div 100$

$$\begin{array}{r} 68 \\ \hline 100 \overline{) 6843} \\ \underline{-600} \\ 843 \\ \underline{-800} \\ 43 \end{array}$$

Thus, Quotient = 68

Remainder = 43

Division by 1000:

If we divide a number by 1000, we get a Quotient by remaining ones, tens and hundreds digits. The number by the removed digits is the remainder.

Example: Divide 53407 by 1000

Solution:

$$\begin{array}{r} 53 \\ \hline 1000 \overline{) 53407} \\ \underline{-5000} \\ 3407 \\ \underline{-3000} \\ 407 \end{array}$$

Thus, Quotient = 53

Remainder = 407

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### Division by 1-Digit number:

Example:

Divide 7829 by 9

Solution:

869 → Quotient

$$\begin{array}{r} 9 \overline{) 7829} \\ -72 \phantom{00} \\ \hline 62 \phantom{00} \\ -54 \phantom{00} \\ \hline 89 \phantom{00} \\ -81 \phantom{00} \\ \hline 8 \phantom{00} \end{array}$$

→  $9 \times 8 = 72$ , Quotient = 869

→  $9 \times 6 = 54$  Remainder = 8

→  $9 \times 9 = 81$

→ Remainder

Working step:-

(1) The 1st digit is 7 which is less than 9. So we can't divide 7 by 9. Take the next digit also.

(2) Divide 78 by 9.

We have,  $78 > 72$  and  $78 < 81$

Thus, 9 goes 8 times in 78.

(3) Bring down 2 making 78. Subtract to get  $78 - 72 = 6$  which is the remainder.

(4) Bring down 9 making 62. 9 goes 6 times in 62  
 $9 \times 6 = 54$ ,  $54 < 62$  and  $62 < 63$

Subtract 54 from 62, so  $62 - 54 = 8$

(5) Bring down 9 making 89.

9 goes 9 times in 89, as  $9 \times 9 = 81$ . Subtract to get  $89 - 81 = 8$  which is the remainder.

### 'Division by A 2-Digit Number'

Example: Divide 5427 by 15

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(5)

Solution:

$$\begin{array}{r} 361 \rightarrow \text{Quotient} \\ 15 \overline{) 5427} \\ \underline{-45} \rightarrow 15 \times 3 \\ 92 \\ \underline{-90} \rightarrow 15 \times 6 \\ 27 \\ \underline{-15} \rightarrow 15 \times 1 \\ 12 \rightarrow \text{Remainder} \end{array}$$

Hence, Quotient = 361

Remainder = 12

working step: Divisor is a two digit number.

- (1) Start the divisor by taking two digits from the extreme left of the dividend 54.
- (2) Divide 54 by 15.
- (3) 15 goes 3 times in 54 i.e.  $15 \times 3 = 45$
- (4) Subtract to get  $54 - 45 = 9$ .
- (5) Bring down 2 making 92.
- (6) Divide 92 by 15. 15 goes 6 times in 92 as  $15 \times 6 = 90$ . Subtract to get  $92 - 90 = 2$
- (7) Bring down 7 making 27.
- (8) Divide 27 by 15. 15 goes one time in 27.
- (9) Subtract to get  $27 - 15 = 12$  as the remainder.

“ Word problems on Division ”

Example: In a sum, dividend is 17750 and Quotient is 250 find the divisor.

Solution: As we know that

Dividend = (Divisor  $\times$  Quotient) + Remainder

Here, dividend = 17750

Quotient = 250

Remainder = 0

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$$\text{So divisor} = \frac{\text{Dividend}}{\text{Quotient}}$$

$$\text{divisor} = \frac{17750}{250}$$
$$= 71$$

Hence, the divisor is 71

Working

$$\begin{array}{r} 71 \\ 250 \overline{) 17750} \\ \underline{- 1750} \phantom{0} \\ 250 \\ \underline{250} \\ 0 \end{array}$$