## ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution
STUDY MATERIAL
CLASS -VI
FIRST TERM

## Division is the inverse of multiplication.

## Division Logarithm - Dividend $=($ Divisor X Quotient $)+$ Remainder

Properties of Division -

1. Closure Property - Whole numbers are not closed under division. Exp -5 $\div 2=$ $5 / 2$ which is not a whole number.
2. Commutative Property - Division is not commutative or associative for whole numbers. Exp - $12 \div 2$ is not equal to $2 \div 12$.
3. Division by 0 - If 0 is divided by any number, the result is 0 .Exp- $0 \div 6=0$. But division by 0 is meaningless. Exp $-8 \div 0=$ meaningless.
4. a) If a is a non zero whole number, then $\mathrm{a} \div \mathrm{a}=1 \operatorname{Exp}-21 \div 21=1$
b) If a is a whole number, then $\mathrm{a} \div 1=\mathrm{a}$. $\operatorname{Exp} 45 \div 1=45$.

## Some problems with solutions :

1.On dividing a certain number by 126 , the quotient is 15 and the remainder is 4 . Find the number.

Sol . We know, Dividend $=($ Divisor X Quotient $)+$ Remainder

$$
\begin{aligned}
& =(126 \times 15)+4 \\
& =1890+4 \\
& =1894 \text { (Ans ) }
\end{aligned}
$$

2. Find a whole number $n$, such that $n \div n=n$

Sol. From the properties of division we know that $\mathrm{a} \div \mathrm{a}=1$, therefore if $\mathrm{n}=1$ we have $1 \div$ $1=1$. Hence $\mathrm{n}=1$.
3. The population of a town is 450772 . In a survey, it was reported that one out of every 14 persons is illiterate. In all how many illiterate persons are there in the town?

Sol . Total population of a town is 450772 .
One out of every 14 persons is illiterate.
Therefore - Nos of illiterate persons in the town $=450772 \div 14=32198$ persons.
Ans - 32198 illiterate persons are there in the town .
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