DIVISION

1) Division means **repeated subtraction**.

Ex :- $12 \div 3 = 4$

$$12 - 3 = 9$$
$$9 - 3 = 6$$
$$6 - 3 = 3$$
$$3 - 3 = 0$$

4 times

2) The number to be divided is called **dividend**.

3) The number by which we divide is called the **divisor**.

4) The resut obtained after division is called **quotient.**

5) The number remaining in the end is called **remainder**.

6) To check the division result, we need to follow the Division Algorithm.

Divisor x Quotient + Remainder = Dividend

```
                    1 4  ←——— Quotient
Divisor ——→  8 ) 1 1 4  ←——— Dividend
                  − 8  ↓
                    3 4
                  − 3 2
                      2  ←——— Remainder
```

Check:-   Divisor x Quotient + Remainder = Dividend

$$8 \quad \times \quad 14 \quad + \quad 2 \quad = \quad 114$$

Properties of Division

1. **Dividing a number by itself is equal to 1.**

   Example: $7876 \div 7876 = 1$

2. **Dividing zero by any number is equal to 0.**

   Example: $0 \div 38765 = 0$

3. **Dividing a number by 1 is equal to the number itself.**

   Example: $76208 \div 1 = 76208$

4. **Dividing any number by zero is not defined.**

   Example: $3893 \div 0$ (not defined)

Quick Assessment

Write the quotient and the remainder for the following without actual division.

1. $375158 \div 10000$
2. $83890 \div 100$
3. $723610 \div 10$
4. $3046326 \div 1000$
5. $888420 \div 100000$
6. $13397 \div 1000$

Solution:-

1) $375158 \div 10000 \rightarrow Q = 37 \quad R = 5158$

2) $83890 \div 100 \rightarrow Q = 838 \quad R = 90$

5) $888420 \div 100000 \rightarrow Q = 8 \quad R = 88420$

6) $13397 \div 1000 \rightarrow Q = 13 \quad R = 397$

Q3 and Q4 are homework