Some Basic Concept and Properties of Division

Basic properties of division are as follows:

1. If the dividend is zero and the divisor is a non-zero number, the quotient is zero.

For example: 0 ÷ 4 = 0
0 ÷ 25 = 0
0 ÷ 125 = 0

2. If the divisor is 1 and dividend is any number, the quotient is the same as the dividend.

For example: 26 ÷ 1 = 26
8 ÷ 1 = 8
330 ÷ 1 = 330

3. If the dividend and the divisor are the same non-zero numbers, the quotient is 1.

For example: 5 ÷ 5 = 1
21 ÷ 21 = 1
225 ÷ 225 = 1

Division by 10, 100 and 1000. Observe the following:

Division	Same as	Quotient	Remainder
4324 ÷ 1	4324 ones ÷ 1 ones	4324	0
4324 ÷ 10	432 tens 4 ones ÷ 1 tens	432	4
4324 ÷ 100	43 hundred 24 ones ÷ 100	43	24
4324 ÷ 1000	4 thousands 324 ones ÷ 1000	4	324

From the table we conclude that:

1. If we divide a number by 10, we get a quotient by removing ones the digit of the number and ones digit is a remainder.

Example: 24 ÷ 10 = Quotient = 2, Remainder = 4

245 ÷ 10 = Quotient = 24, Remainder = 5

2457 ÷ 10 = quotient = 245, remainder = 7

2. If we divide a number by 100, we get a quotient by removing ones and ten digits. The number formed by ones and tens digits is the remainder.

Example: 324 ÷ 100 = Quotient = 3, Remainder = 24

3456 ÷ 100 = Quotient = 34, remainder = 56

3. If we divide a number by 1000, we get a quotient by removing ones and tens and hundreds digits. The number formed by removed digits is the remainder.

Example: 2456 ÷ 1000 = Quotient = 2, Remainder = 456

35858 ÷ 1000 = Quotient = 37, Remainder = 858

572585 ÷ 1000 = Quotient = 572, Remainder = 585