(Olympiad Comprehensive Notes)

Operation on Numbers

In the previous chapter we have studied about numbers, way of numeration and some properties of numbers. In this chapter we will study operation on numbers. Addition, subtraction, multiplication and division are four basic arithmetic operations. Let us know about them.

Addition

Under the operation of addition two or more than two numbers are added with each other.

➢ **Example:**

Add 544214474 and 904426456.

> **Solution:**
> 544214474 + 904426456 = 1448640930

➢ **Example:**

Add 798649665 and 23479725.

> **Solution:**
> 798649665 + 23479725 = 822129390

Subtraction

Under the operation of subtraction, difference between two numbers is to be calculated.

➢ **Example:**

Subtract 234495 from 87445653.

> **Solution:** 87445653 - 234495 = 87211158

➢ **Example:**

Subtract 5744544 from 238995440

> **Solution:** 238995440 - 5744544 = 233250896

Multiplication

When a number is added to itself for a number of times, the process of addition becomes bigger and lengthy. Therefore a short cut method was developed to perform such additions, called multiplication. Thus, multiplication is a short cut method of repeated addition.

➢ **Example:**

Multiply 65446565 and 3254

     Solution: $65446565 \times 3254 = 212963122510$

➢ **Example:**

Find the product of 245454 and 407

     Solution: $245454 \times 407 = 99899778$

Division

Division is the distribution of a quantity into some parts, in such a way, so that each of the parts contains equal amount.

➢ **Example:**

Divide 654545650 by 25.

     Solution: $654545650 \div 25 = 26181826$

➢ **Example:**

Divide 15644 by 58 and find the remainder.

     Solution

```
58)15644(269
   − 116
   _____
    0404
   − 348
   _____
    0564
   − 522
   _____
    042
```

Remainder = 42