Class 6
Important Formulas
Chapter 2 – Whole Numbers

1. A factor of a number is that number which divides the number exactly.

2. A multiple of a number is exactly divisible by the number.

3. Every number is a factor as well as a multiple of itself.

4. 1 is a factor of every number and is the only number, which has exactly one factor.

5. Every number other than 1 has at least two factors, namely 1 and the number itself.

6. A number having no factor other than 1 and the number itself is called a prime number. In other words, a prime number has exactly two distinct factors, 1 and the number itself.

7. A number having factors other than 1 and the number itself is called a composite number.

8. The number 1 is neither a prime nor a composite number, because it has a single factor.

9. Numbers divisible by 2 are called even numbers.

10. Numbers not divisible by 2 are called odd numbers.

11. 2 is the only even prime number.

12. Every prime number other than 2 is odd, but every odd number is not necessarily a prime number.

13. Every even number greater than 4 can be expressed as the sum of two odd prime numbers.

14. Primes occurring in pairs with a difference of two are called twin primes.

15. Every number other than 1 can be uniquely expressed as the product of prime numbers except for the order of prime numbers.

16. A number is divisible by –

 (i) 2, if the unit's digit of the number is 0, 2, 4, 6 or 8.

(ii) 3, if the sum of the digits is divisible by 3.

(iii) 4, if the number formed by its digits in ten's and unit's places is divisible by 4.

(iv) 5, if unit's digit is 0 or 5.

(v) 6, if it is divisible by both 2 and 3.

(vi) 8, if the number formed by its digits in hundred's, ten's and unit's places is divisible by 8.

(vii) 9, if the sum of the digits is divisible by 9.

(viii) 10, if the unit's digit is 0.

(ix) 11, if the difference of the sum of its digits in odd places and the sum of its digits in even places (starting from unit's place) is either 0 or divisible by 11.

17. The H.C.F. of two or more numbers is the largest number that divides all the given numbers.

18. The L.C.M. of two or more numbers is the smallest number which is divisible by all the given numbers.

19. The product of H.C.F. and L.C.M. of two numbers equals their product. This result may not be true for more than two numbers.

20. The H.C.F. of any two prime or co-prime numbers equals 1.

21. The L.C.M. of any two prime or co-prime numbers equals their product.

22. The H.C.F. of two or more numbers is never greater than any of the numbers.

23. The L.C.M. of two or more numbers is never less than any of the numbers.

24. The H.C.F. of two or more numbers is a factor of their L. C.M.

25. If x is a factor of y, then the H.C.F. of x and y is x and L.C.M, of x and y is y.