Maths

Class – VI (27-April-2020)

EXERCISE 2A

1. Define: (i) factor (ii) multiple. Give five examples of each.
2. Write down all the factors of
   (i) 20 (ii) 36 (iii) 60 (iv) 75
3. Write the first five multiples of each of the following numbers:
   (i) 17 (ii) 23 (iii) 65 (iv) 70
4. Which of the following numbers are even and which are odd?
   (i) 32 (ii) 37 (iii) 50 (iv) 58
   (v) 69 (vi) 144 (vii) 321 (viii) 253
5. What are prime numbers? Give ten examples.
6. Write all the prime numbers between
   (i) 10 and 40 (ii) 80 and 100 (iii) 40 and 80 (iv) 30 and 40
7. (i) Write the smallest prime number.
   (ii) List all even prime numbers.
   (iii) Write the smallest odd prime number.
8. Find which of the following numbers are primes:
   (i) 87 (ii) 89 (iii) 63 (iv) 91
9. Make a list of seven consecutive numbers, none of which is prime.
   Hint. *See the sieve of Eratosthenes.*
10. (i) Is there any counting number having no factor at all?
    (ii) Find all the numbers having exactly one factor.
    (iii) Find numbers between 1 and 100 having exactly three factors.
11. What are composite numbers? Can a composite number be odd? If yes, write the smallest odd composite number.
12. What are twin primes? Write all the pairs of twin primes between 50 and 100.
13. What are co-primes? Give examples of five pairs of co-primes. Are co-primes always primes? If no, illustrate your answer by an example.
14. Express each of the following numbers as the sum of two odd primes:
    (i) 36 (ii) 42 (iii) 84 (iv) 98
15. Express each of the following odd numbers as the sum of three odd prime numbers:
    (i) 31 (ii) 35 (iii) 49 (iv) 63
16. Express each of the following numbers as the sum of twin primes:

(i) 36 (ii) 84 (iii) 120 (iv) 144

17. Which of the following statements are true?
    (i) 1 is the smallest prime number.
    (ii) If a number is prime, it must be odd.
    (iii) The sum of two prime numbers is always a prime number.
    (iv) If two numbers are co-primes, at least one of them must be a prime number.