EduSahara™ Assignment

Name : Prime Factorization

Chapter : Playing with Numbers

Grade : CBSE Grade VI

1. Find the prime factorization of 38

   (i) 1×19 (ii) 2×19 (iii) -1×19 (iv) $2^2 \times 19$ (v) 2×21

2. Find the prime factorization of 54

   (i) $2^2 \times 3^3$ (ii) 2×3^3 (iii) 1×3^3 (iv) 2×6^3 (v) $2^{-2} \times 3^3$

3. Find the prime factorization of 189

   (i) $3^3 \times 7$ (ii) $3^3 \times 6$ (iii) $3^3 \times 9$ (iv) 3×7 (v) $3^3 \times 7^2$

4. Find the prime factorization of 16038

   (i) $2 \times 3^7 \times 11$ (ii) $2 \times 3^4 \times 11$ (iii) $2 \times 3^6 \times 11$ (iv) $2 \times 5^6 \times 11$ (v) $2 \times 3^6 \times 10$

5. Find the number of prime factors of 15

   (i) 2 (ii) 3 (iii) 1 (iv) 4 (v) 0

6. Find the number of prime factors of 78

   (i) 1 (ii) 2 (iii) 3 (iv) 0 (v) 4

7. Find the number of prime factors of 840

   (i) 5 (ii) 3 (iii) 1 (iv) 7 (v) 4

8. Find the number of prime factors of 1560

   (i) 7 (ii) 4 (iii) 3 (iv) 2 (v) 5

9. Find the total number of factors of 40

   (i) 8 (ii) 7 (iii) 9 (iv) 6 (v) 11

10. Find the total number of factors of 81

    (i) 2 (ii) 5 (iii) 7 (iv) 4 (v) 6

11. Find the total number of factors of 351

    (i) 8 (ii) 10 (iii) 9 (iv) 7 (v) 5

12. Find the total number of factors of 7500

    (i) 31 (ii) 29 (iii) 33 (iv) 28 (v) 30

13. Find the prime factorization of 12

    (i) $2^2 \times 3$ (ii) $2^2 \times 3^2$ (iii) $2^2 \times 2$ (iv) $2^2 \times 6$ (v) $2^2 \times 1$

14. Find the prime factorization of 80

(i) $2^4 \times 4$ (ii) $2^4 \times 2$ (iii) $2^5 \times 5$ (iv) $2^4 \times 5$ (v) $4^4 \times 5$

15. Find the prime factorization of 1056

(i) $2^5 \times 3 \times 11$ (ii) $2^5 \times 3 \times 10$ (iii) $4^5 \times 3 \times 11$ (iv) $2^5 \times 3^2 \times 11$ (v) $2^5 \times 3 \times 9$

16. Find the prime factorization of 5040

(i) $2^4 \times 3^2 \times 5 \times 6$ (ii) $4^4 \times 3^2 \times 5 \times 7$ (iii) $2^2 \times 3^2 \times 5 \times 7$ (iv) $2^4 \times 3^2 \times 5 \times 7^2$ (v) $2^4 \times 3^2 \times 5 \times 7$

17. Find the number of prime factors of 25

(i) 3 (ii) 0 (iii) 4 (iv) 1 (v) 2

18. Find the number of prime factors of 81

(i) 3 (ii) 0 (iii) 4 (iv) 1 (v) 2

19. Find the number of prime factors of 880

(i) 3 (ii) 0 (iii) 4 (iv) 2 (v) 1

20. Find the number of prime factors of 7800

(i) 4 (ii) 3 (iii) 7 (iv) 1 (v) 5

21. Find the total number of factors of 46

(i) 3 (ii) 7 (iii) 5 (iv) 2 (v) 4

22. Find the total number of factors of 70

(i) 7 (ii) 8 (iii) 9 (iv) 10 (v) 5

23. Find the total number of factors of 735

(i) 14 (ii) 12 (iii) 9 (iv) 13 (v) 11

24. Find the total number of factors of 12000

(i) 50 (ii) 45 (iii) 49 (iv) 48 (v) 47

Assignment Key

1) (ii)	2) (ii)	3) (i)	4) (iii)	5) (i)	6) (iii)
7) (v)	8) (ii)	9) (i)	10) (ii)	11) (i)	12) (v)
13) (i)	14) (iv)	15) (i)	16) (v)	17) (iv)	18) (iv)
19) (i)	20) (i)	21) (v)	22) (ii)	23) (ii)	24) (iv)