EduSahara™ Assignment

Name : Prime Factorization

Chapter : Playing with Numbers

Grade : CBSE Grade VI

1. Find the prime factorization of 4

   (i) 4^2 (ii) 2 (iii) 2^2 (iv) 2^3 (v) $(-1)^2$

2. Find the prime factorization of 65

   (i) $5^2 \times 13$ (ii) 8×13 (iii) 5×10 (iv) 5×12 (v) 5×13

3. Find the prime factorization of 910

   (i) $2 \times 5 \times 6 \times 13$ (ii) $2 \times 5^2 \times 7 \times 13$ (iii) $2 \times 3 \times 7 \times 13$ (iv) $2 \times 5 \times 7 \times 13$ (v) $2 \times 5 \times 9 \times 13$

4. Find the prime factorization of 6912

   (i) $2^8 \times 3^3$ (ii) $2^7 \times 3^3$ (iii) $2^8 \times 5^3$ (iv) $2^9 \times 3^3$ (v) $2^6 \times 3^3$

5. Find the number of prime factors of 40

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

6. Find the number of prime factors of 58

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

7. Find the number of prime factors of 270

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

8. Find the number of prime factors of 2496

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

9. Find the total number of factors of 10

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

10. Find the total number of factors of 86

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

11. Find the total number of factors of 891

    (i) 10 (ii) 13 (iii) 9 (iv) 11 (v) 8

12. Find the total number of factors of 2016

    (i) 33 (ii) 37 (iii) 36 (iv) 35 (v) 39

13. Find the prime factorization of 49

    (i) 9^2 (ii) 7^3 (iii) 4^2 (iv) 7 (v) 7^2

14. Find the prime factorization of 57

(i) $3^2 \times 19$ (ii) 3×17 (iii) 5×19 (iv) 3×19 (v) 3×18

15. Find the prime factorization of 918

(i) $2 \times 3^3 \times 17^2$ (ii) $-1 \times 3^3 \times 17$ (iii) $2 \times 3^3 \times 17$ (iv) $1 \times 3^3 \times 17$ (v) $4 \times 3^3 \times 17$

16. Find the prime factorization of 600

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

17. Find the number of prime factors of 22

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

18. Find the number of prime factors of 85

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

19. Find the number of prime factors of 420

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

20. Find the number of prime factors of 14742

(i) 3 (ii) 5 (iii) 6 (iv) 1 (v) 4

21. Find the total number of factors of 6

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

22. Find the total number of factors of 51

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

23. Find the total number of factors of 72

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

24. Find the total number of factors of 1350

(i) 23 (ii) 25 (iii) 24 (iv) 22 (v) 27

Assignment Key

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