EduSahara™ Assignment

Name : Prime Factorization

Chapter : Playing with Numbers

Grade : CBSE Grade VI

1. Find the prime factorization of 18

   (i) 1×3^2 (ii) -1×3^2 (iii) 2×3^2 (iv) 2×3^3 (v) 5×3^2

2. Find the prime factorization of 63

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

3. Find the prime factorization of 396

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

4. Find the prime factorization of 2400

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

5. Find the number of prime factors of 35

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

6. Find the number of prime factors of 91

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

7. Find the number of prime factors of 1584

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

8. Find the number of prime factors of 3750

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

9. Find the total number of factors of 44

   (i) 5 (ii) 6 (iii) 8 (iv) 7 (v) 4

10. Find the total number of factors of 98

    (i) 7 (ii) 6 (iii) 9 (iv) 5 (v) 4

11. Find the total number of factors of 490

    (i) 13 (ii) 11 (iii) 15 (iv) 12 (v) 9

12. Find the total number of factors of 14700

    (i) 55 (ii) 53 (iii) 54 (iv) 51 (v) 56

13. Find the prime factorization of 18

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

14. Find the prime factorization of 54

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

15. Find the prime factorization of 1008

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

16. Find the prime factorization of 1920

(i) $2^7 \times 3^2 \times 5$ (ii) $2^7 \times 5 \times 5$ (iii) $2^7 \times 3 \times 5$ (iv) $(-1)^7 \times 3 \times 5$ (v) $2^6 \times 3 \times 5$

17. Find the number of prime factors of 14

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

18. Find the number of prime factors of 86

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

19. Find the number of prime factors of 1120

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

20. Find the number of prime factors of 864

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

21. Find the total number of factors of 8

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

22. Find the total number of factors of 92

(i) 4 (ii) 6 (iii) 5 (iv) 7 (v) 8

23. Find the total number of factors of 306

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

24. Find the total number of factors of 3840

(i) 36 (ii) 37 (iii) 35 (iv) 33 (v) 38

Assignment Key

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