EduSahara™ Assignment

Name : Prime Factorization

Chapter : Playing with Numbers

Grade : SSC Grade VI

1. Find the prime factorization of 32

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

2. Find the prime factorization of 77

   (i) 5×11 (ii) 7×11^2 (iii) 9×11 (iv) 7×10 (v) 7×11

3. Find the prime factorization of 748

   (i) $2^{-1} \times 11 \times 17$ (ii) $2 \times 11 \times 17$ (iii) $4^2 \times 11 \times 17$ (iv) $2^2 \times 11^2 \times 17$ (v) $2^2 \times 11 \times 17$

4. Find the prime factorization of 6300

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

5. Find the number of prime factors of 6

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

6. Find the number of prime factors of 92

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

7. Find the number of prime factors of 108

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

8. Find the number of prime factors of 1792

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

9. Find the prime factorization of 30

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

10. Find the prime factorization of 62

    (i) 2×31 (ii) $2^{-1} \times 31$ (iii) 2×31^2 (iv) 2×33 (v) 1×31

11. Find the prime factorization of 540

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

12. Find the prime factorization of 3600

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

13. Find the number of prime factors of 27

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

14. Find the number of prime factors of 64

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

15. Find the number of prime factors of 495

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

16. Find the number of prime factors of 2800

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

Assignment Key

1) (i)	2) (v)	3) (v)	4) (iii)	5) (iv)	6) (iii)
7) (iii)	8) (v)	9) (ii)	10) (i)	11) (ii)	12) (iv)
13) (iv)	14) (i)	15) (iii)	16) (v)		