EduSahara™ Assignment

Name : Prime Factorization

Chapter : Exponents

Grade : SSC Grade VII

1. Find the prime factorization of 20

(i) $2^3 \times 5$ (ii) 0×5 (iii) $2^2 \times 5$ (iv) 2×5 (v) $2^2 \times 8$

2. Find the prime factorization of 756

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

3. Find the prime factorization of 36450

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

4. Find the prime factorization of -27

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

5. Find the prime factorization of 648

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

6. Find the prime factorization of 45360

(i) $2^4 \times 3^4 \times 3 \times 7$ (ii) $2^4 \times 3^4 \times 4 \times 7$ (iii) $2^4 \times 3^4 \times 8 \times 7$ (iv) $2^4 \times 3^4 \times 5 \times 7$ (v) $2^4 \times 3^4 \times 5 \times 7^2$

7. Find the prime factorization of -24

(i) $-1 \times 2^4 \times 3$ (ii) $-1 \times 2^3 \times 6$ (iii) $-1 \times 2 \times 3$ (iv) $-1 \times 2^2 \times 3$ (v) $-1 \times 2^3 \times 3$

8. Find the prime factorization of 3456

(i) $2^7 \times 5^3$ (ii) $2^8 \times 3^3$ (iii) $2^7 \times 3^3$ (iv) $2^4 \times 3^3$ (v) $2^7 \times 3^2$

9. Find the prime factorization of 5880

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

10. Find the exponential notation of $(\frac{-9}{4})$

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

11. Find the prime factorization of 405

(i) $3^3 \times 5$ (ii) 1×5 (iii) $3^4 \times 5^2$ (iv) $3^4 \times 5$ (v) $3^4 \times 7$

12. Find the prime factorization of 22680

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

Assignment Key

1) (iii)	2) (i)	3) (iii)	4) (iii)	5) (i)	6) (iv)
7) (v)	8) (iii)	9) (i)	10) (i)	11) (iv)	12) (iii)