

EduSahara™ Learning Center Assignment**Grade : Class VIII, SSC****Chapter : Square Roots and Cube Roots****Name : Prime Factorization and Exponent Notation****Licensed To : Teachers and Students for non-commercial use**

1. Find the prime factorization of 49

(i) 7^3 (ii) 7 (iii) 9^2

(iv) 4^2 (v) 7^2

2. Find the prime factorization of 91

(i) 7×12 (ii) 4×13 (iii) $7^2 \times 13$

(iv) 7×16 (v) 7×13

3. Find the prime factorization of 1323

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

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

4. Find the prime factorization of 3120

(i) $2^4 \times 3 \times 5 \times 13$ (ii) $2^4 \times 3 \times 7 \times 13$ (iii) $2^5 \times 3 \times 5 \times 13$

(iv) $2^4 \times 3 \times 5 \times 10$ (v) $2^4 \times 2 \times 5 \times 13$

5. Find the prime factorization of 39

(i) 3×13 (ii) 3×13^2 (iii) 2×13

(iv) 3×15 (v) 1×13

6. Find the prime factorization of 51

(i) 3×17^2 (ii) 3×16 (iii) 3×17

(iv) 3×15 (v) 5×17

7. Find the prime factorization of 572

(i) $2^2 \times 10 \times 13$ (ii) $2^2 \times 11 \times 13$ (iii) $2^2 \times 11 \times 10$

(iv) $5^2 \times 11 \times 13$ (v) $2^2 \times 11 \times 13^2$

8. Find the prime factorization of 18900

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

(iv) $2^2 \times 1 \times 5^2 \times 7$ (v) $2^2 \times 3^3 \times 8^2 \times 7$

9. Find the prime factorization of 4

(i) 2^2 (ii) 2^3 (iii) 2

(iv) 4^2 (v) $(-1)^2$

10. Find the prime factorization of 66

(i) $2 \times 2 \times 11$ (ii) $2 \times 3 \times 11$ (iii) $2 \times 5 \times 11$

$$(iv) 2^2 \times 3 \times 11 \quad (v) 2 \times 3 \times 9$$

11. Find the prime factorization of 156

$$(i) (-1)^2 \times 3 \times 13 \quad (ii) 2^2 \times 3 \times 12 \quad (iii) 2^2 \times 3 \times 13$$

$$(iv) 2^2 \times 5 \times 13 \quad (v) 2^3 \times 3 \times 13$$

12. Find the prime factorization of 3024

$$(i) 2^4 \times 5^3 \times 7 \quad (ii) (-1)^4 \times 3^3 \times 7 \quad (iii) 2^4 \times 3^3 \times 7$$

$$(iv) 2^4 \times 3^4 \times 7 \quad (v) 2^3 \times 3^3 \times 7$$

Assignment Key

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