

EduSahara™ Learning Center Assignment**Grade : Class VII, SSC****Chapter : Exponents****Name : Prime Factorization****Licensed To : Teachers and Students for non-commercial use**

1. Find the exponential notation of $\frac{3}{2}$

(i) $\frac{3}{-1}$ (ii) $\frac{2}{2}$ (iii) $\frac{3}{5}$

(iv) $\frac{3^2}{2}$ (v) $\frac{3}{2}$

2. Find the prime factorization of 810

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

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

3. Find the prime factorization of 1440

(i) $2^5 \times 3^2 \times 5$ (ii) $2^5 \times 3 \times 5$ (iii) $2^5 \times 1 \times 5$

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

4. Find the prime factorization of 36

(i) $2^2 \times 3^2$ (ii) 2×3^2 (iii) $2^2 \times 3^3$

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

5. Find the prime factorization of 1400

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

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

6. Find the prime factorization of 12288

$$(i) 2^{12} \times 3 \quad (ii) 2^{12} \times 3^{-2} \quad (iii) 2^{12} \times 2$$

$$(iv) 2^{12} \times 6 \quad (v) 2^{12} \times 3^2$$

7. Find the exponential notation of $(\frac{-50}{3})$

$$(i) \frac{-1 \times 2 \times 5^2}{1} \quad (ii) \frac{-1 \times 2 \times 5^2}{3} \quad (iii) \frac{-1 \times 2 \times 5^2}{6}$$

$$(iv) \frac{(-1)^2 \times 2 \times 5^2}{3} \quad (v) \frac{-1 \times 1 \times 5^2}{3}$$

8. Find the prime factorization of 1152

$$(i) 2^7 \times 3^3 \quad (ii) 2^7 \times 3^2 \quad (iii) 2^7 \times 3^{-1}$$

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

9. Find the prime factorization of 10080

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

$$(iv) 2^5 \times 3^2 \times 5 \times 6 \quad (v) 2^5 \times 3^2 \times 5 \times 5$$

10. Find the exponential notation of $(\frac{-128}{9})$

$$(i) \frac{(-1)^2 \times 2^7}{9} \quad (ii) \frac{-1 \times 2^7}{9} \quad (iii) \frac{-1 \times 2^7}{9}$$

$$\begin{array}{ccc}
 3^2 & 3^2 & 1 \\
 \text{(iv)} \frac{-1 \times 2^7}{5^2} & \text{(v)} \frac{-1 \times 2^6}{3^2} &
 \end{array}$$

11. Find the prime factorization of 84

(i) $2^2 \times 3 \times 5$ (ii) $2^2 \times 3 \times 7$ (iii) $2^2 \times 3 \times 10$

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

12. Find the prime factorization of 3780

(i) $2^2 \times 3^3 \times 5^2 \times 7$ (ii) $2^2 \times 3^3 \times 5 \times 10$ (iii) $2^2 \times 3^2 \times 5 \times 7$

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

Assignment Key

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