



1. Find the prime factorization of 288

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

2. Find the prime factorization of 11760

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

3. Find the exponential notation of

$2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

- (i)  $2^8$  (ii)  $5^7$  (iii)  $(-1)^7$  (iv)  $2^6$  (v)  $2^7$

4. Find the exponential notation of

$-4 \times -4 \times -4 \times -4 \times -4 \times -4 \times -4 \times -4$

- (i)  $(-6)^8$  (ii)  $(-2)^8$  (iii)  $(-4)^7$  (iv)  $(-4)^8$  (v)  $(-4)^9$

5. Find the exponential notation of

$-10 \times -10 \times -10 \times -10$

- (i)  $(-8)^4$  (ii)  $(-10)^3$  (iii)  $(-10)^5$  (iv)  $(-10)^4$  (v)  $(-12)^4$

6. Find the exponential notation of

$13 \times 13 \times 13 \times 13 \times 13 \times 13$

- (i)  $16^6$  (ii)  $13^7$  (iii)  $11^6$  (iv)  $13^6$  (v)  $13^5$

Find the exponential notation of

7.  $\frac{5}{4} \times \frac{5}{4} \times \frac{5}{4} \times \frac{5}{4} \times \frac{5}{4} \times \frac{5}{4} \times \frac{5}{4}$

- (i)  $\left(\frac{5}{4}\right)^7$  (ii)  $\left(\frac{5}{4}\right)^8$  (iii)  $\left(\frac{7}{4}\right)^7$  (iv)  $\left(\frac{3}{4}\right)^7$  (v)  $\left(\frac{5}{4}\right)^6$

Find the exponential notation of

8.  $\frac{16}{15} \times \frac{16}{15} \times \frac{16}{15} \times \frac{16}{15} \times \frac{16}{15} \times \frac{16}{15}$

- (i)  $\left(\frac{6}{5}\right)^6$  (ii)  $\left(\frac{16}{15}\right)^7$  (iii)  $\left(\frac{16}{15}\right)^6$  (iv)  $\left(\frac{14}{15}\right)^6$  (v)  $\left(\frac{16}{15}\right)^5$

Find the exponential notation of

9.  $(\frac{-9}{8}) \times (\frac{-9}{8}) \times (\frac{-9}{8}) \times (\frac{-9}{8}) \times (\frac{-9}{8}) \times (\frac{-9}{8}) \times (\frac{-9}{8})$

(i)  $(\frac{-7}{8})^7$  (ii)  $(\frac{-9}{8})^6$  (iii)  $(\frac{-9}{8})^8$  (iv)  $(\frac{-9}{8})^7$  (v)  $(\frac{-11}{8})^7$

Find the exponential notation of

10.  $(\frac{-19}{14}) \times (\frac{-19}{14}) \times (\frac{-19}{14}) \times (\frac{-19}{14}) \times (\frac{-19}{14}) \times (\frac{-19}{14}) \times (\frac{-19}{14}) \times (\frac{-19}{14})$

(i)  $(\frac{-19}{14})^7$  (ii)  $(\frac{-3}{2})^8$  (iii)  $(\frac{-19}{14})^9$  (iv)  $(\frac{-17}{14})^8$  (v)  $(\frac{-19}{14})^8$

11. Simplify the expression  $(\frac{9}{8})^5 \times (\frac{9}{8})^7$

(i)  $(\frac{7}{8})^{12}$  (ii)  $(\frac{11}{8})^{12}$  (iii)  $(\frac{9}{8})^{12}$  (iv)  $(\frac{9}{8})^{11}$  (v)  $(\frac{9}{8})^{13}$

12. Simplify the expression  $(\frac{-8}{9})^6 \times (\frac{-8}{9})^2$

(i)  $(\frac{-8}{9})^9$  (ii)  $(\frac{-10}{9})^8$  (iii)  $(\frac{-8}{9})^8$  (iv)  $(\frac{-8}{9})^7$  (v)  $(\frac{-2}{3})^8$

13. Simplify the expression  $(\frac{8}{7})_{(-9)} \times_{(-6)} (\frac{8}{7})$

(i)  $(\frac{8}{9})_{54}$  (ii)  $(\frac{8}{7})_{57}$  (iii)  $(\frac{8}{5})_{54}$  (iv)  $(\frac{8}{7})_{54}$  (v)  $(\frac{8}{7})_{52}$

14. Find the prime factorization of 324

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

15. Find the prime factorization of 22680

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

## Assignment Key

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