EduSahara™ Assignment

Name : Base Power Concepts

Chapter : Powers and Roots

Grade : ICSE Grade VI

1. The base in the term 3^6 is

   (i) 6 (ii) -3 (iii) -6 (iv) 3 (v) 0

2. The exponent in the term 9^2 is

   (i) 9 (ii) -1 (iii) -2 (iv) 2 (v) -9

3. The power in the term 9^6 is

   (i) 3 (ii) -9 (iii) -6 (iv) 6 (v) 9

4. The base in the term $\left(\frac{7}{2}\right)^3$ is

   (i) $\frac{7}{2}$ (ii) $(\frac{-7}{2})$ (iii) -3 (iv) $\frac{5}{2}$ (v) 3

5. The exponent in the term 2^8 is

   (i) $\frac{2}{1}$ (ii) -2 (iii) 5 (iv) 8 (v) -8

6. The power in the term $\left(\frac{7}{5}\right)^5$ is

   (i) $(\frac{-7}{5})$ (ii) 5 (iii) $\frac{7}{5}$ (iv) -5 (v) 3

7. Simplify the expression $3^7 \times 3^7$

   (i) 5^{14} (ii) 3^{15} (iii) 3^{13} (iv) 3^{14} (v) 3^{11}

8. Simplify the expression $(-5)^9 \times (-5)^9$

   (i) $(-5)^{17}$ (ii) $(-3)^{18}$ (iii) $(-5)^{19}$ (iv) $(-5)^{18}$ (v) $(-7)^{18}$

9. Simplify the expression $5^3 \times 5^5 \times 5^2$

   (i) 5^9 (ii) 2^{10} (iii) 5^{11} (iv) 8^{10} (v) 5^{10}

10. Simplify the expression $(-5)^2 \times (-5)^2$

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

11. Simplify the expression $5^9 \times 2^9$

(i) 13^9 (ii) 10^9 (iii) 10^{10} (iv) 7^9 (v) 10^8

12. Simplify the expression $(-9)^8 \times (-4)^8$

(i) 34^8 (ii) 36^9 (iii) 36^7 (iv) 36^8 (v) 38^8

13. Expand the following base power 3^3

(i) 27 (ii) 81 (iii) 9 (iv) 1 (v) 216

14. Expand the following base power $(-3)^5$

(i) -1 (ii) -243 (iii) 81 (iv) 729 (v) -7776

15. Find the exponential notation of
$5 \times 5 \times 5 \times 5 \times 5$

(i) 3^5 (ii) 5^5 (iii) 7^5 (iv) 5^4 (v) 5^6

16. Find the exponential notation of
$-6 \times -6 \times -6 \times -6 \times -6 \times -6$

(i) $(-6)^5$ (ii) $(-9)^6$ (iii) $(-3)^6$ (iv) $(-6)^6$ (v) $(-6)^7$

17. Find the exponential notation of
$-10 \times -10 \times -10 \times -10 \times -10 \times -10 \times -10$

(i) $(-10)^8$ (ii) $(-10)^7$ (iii) $(-10)^6$ (iv) $(-12)^7$ (v) $(-7)^7$

18. Find the exponential notation of
$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10$

(i) 10^9 (ii) 10^8 (iii) 13^8 (iv) 8^8 (v) 10^7

19. Find the exponential notation of
$\frac{9}{5} \times \frac{9}{5} \times \frac{9}{5} \times \frac{9}{5} \times \frac{9}{5} \times \frac{9}{5} \times \frac{9}{5}$

(i) $\left(\frac{11}{5}\right)^7$ (ii) $\left(\frac{9}{5}\right)^7$ (iii) $\left(\frac{7}{5}\right)^7$ (iv) $\left(\frac{9}{5}\right)^8$ (v) $\left(\frac{9}{5}\right)^6$

20. Find the exponential notation of
$\frac{14}{13} \times \frac{14}{13} \times \frac{14}{13} \times \frac{14}{13}$

(i) $\left(\frac{16}{13}\right)^4$ (ii) $\left(\frac{14}{13}\right)^4$ (iii) $\left(\frac{14}{13}\right)^5$ (iv) $\left(\frac{12}{13}\right)^4$ (v) $\left(\frac{14}{13}\right)^3$

Find the exponential notation of

21. $(\frac{-9}{7}) \times (\frac{-9}{7}) \times (\frac{-9}{7}) \times (\frac{-9}{7}) \times (\frac{-9}{7})$

(i) $\left(\frac{-9}{7}\right)^4$ (ii) $\left(\frac{-11}{7}\right)^5$ (iii) $\left(\frac{-9}{7}\right)^5$ (iv) $\left(\frac{-9}{7}\right)^6$ (v) $(-1)^5$

Find the exponential notation of

22. $(\frac{-18}{13}) \times (\frac{-18}{13}) \times (\frac{-18}{13}) \times (\frac{-18}{13}) \times (\frac{-18}{13})$

(i) $\left(\frac{-18}{13}\right)^5$ (ii) $\left(\frac{-16}{13}\right)^5$ (iii) $\left(\frac{-18}{13}\right)^6$ (iv) $\left(\frac{-18}{13}\right)^4$ (v) $\left(\frac{-20}{13}\right)^5$

23. $-1^4 =$

(i) undefined (ii) -1 (iii) 0 (iv) 1 (v) ∞

24. $-1^9 =$

(i) 1 (ii) -1 (iii) 0 (iv) ∞ (v) undefined

25. $5^0 =$

(i) -1 (ii) 1 (iii) ∞ (iv) 0 (v) undefined

26. $0^0 =$

(i) ∞ (ii) undefined (iii) 0 (iv) 1 (v) -1

27. $-5^0 =$

(i) -1 (ii) 1 (iii) undefined (iv) ∞ (v) 0

28. $0^6 =$

(i) undefined (ii) 1 (iii) 0 (iv) -1 (v) ∞

Assignment Key

1) (iv)	2) (iv)	3) (iv)	4) (i)	5) (iv)	6) (ii)
7) (iv)	8) (iv)	9) (v)	10) (ii)	11) (ii)	12) (iv)
13) (i)	14) (ii)	15) (ii)	16) (iv)	17) (ii)	18) (ii)
19) (ii)	20) (ii)	21) (iii)	22) (i)	23) (iv)	24) (ii)
25) (ii)	26) (ii)	27) (ii)	28) (iii)		