

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

1. The base in the term 3^7 is

(i) -7 (ii) 3 (iii) -3 (iv) 1 (v) 7

2. The exponent in the term 3^6 is

(i) 3 (ii) -3 (iii) 4 (iv) 6 (v) -6

3. The power in the term 3^7 is

(i) -7 (ii) 5 (iii) -3 (iv) 7 (v) 3

4. The base in the term 8^3 is

(i) $\frac{8}{1}$ (ii) 3 (iii) -8 (iv) 6 (v) -3

5. The exponent in the term $8^{\left(\frac{9}{2}\right)}$ is

(i) $\frac{7}{2}$ (ii) $\left(\frac{-9}{2}\right)$ (iii) $\frac{9}{2}$ (iv) 8 (v) -8

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

(i) 6^4 (ii) 6^5 (iii) 3^5 (iv) 9^5 (v) 6^6

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

(i) $(-4)^3$ (ii) $(-6)^3$ (iii) $(-6)^2$ (iv) $(-6)^4$ (v) $(-8)^3$

Find the exponential notation of

8. $-17 \times -17 \times -17 \times -17 \times -17 \times -17 \times -17 \times -17$

(i) $(-17)^9$ (ii) $(-20)^8$ (iii) $(-17)^7$ (iv) $(-17)^8$ (v) $(-14)^8$

Find the exponential notation of

9. $15 \times 15 \times 15 \times 15 \times 15 \times 15 \times 15 \times 15$

(i) 15^8 (ii) 17^8 (iii) 15^9 (iv) 12^8 (v) 15^7

Find the exponential notation of

10. $\frac{5}{3} \times \frac{5}{3} \times \frac{5}{3} \times \frac{5}{3} \times \frac{5}{3} \times \frac{5}{3}$

(i) $\left(\frac{5}{3}\right)^5$ (ii) $\left(\frac{5}{3}\right)^6$ (iii) $\left(\frac{5}{3}\right)^7$ (iv) 1 (v) $\left(\frac{7}{3}\right)^6$

Find the exponential notation of

11. $\frac{17}{14} \times \frac{17}{14} \times \frac{17}{14} \times \frac{17}{14}$

(i) $\left(\frac{15}{14}\right)^4$ (ii) $\left(\frac{19}{14}\right)^4$ (iii) $\left(\frac{17}{14}\right)^5$ (iv) $\left(\frac{17}{14}\right)^3$ (v) $\left(\frac{17}{14}\right)^4$

Find the exponential notation of

12. $\frac{-7}{1} \times \frac{-7}{1} \times \frac{-7}{1}$

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

Find the exponential notation of

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

(i) $\left(\frac{-13}{18}\right)^3$ (ii) $\left(\frac{-13}{18}\right)^2$ (iii) $\left(\frac{-13}{18}\right)^4$ (iv) $\left(\frac{-11}{18}\right)^3$ (v) $\left(\frac{-5}{6}\right)^3$

14. Which of the following statements are true?

a) $\left(x^m\right)^n = x^{(m+n)}$

b) $\frac{x^m}{x^n} = x^{\frac{m}{n}}$

c) $a^m \cdot a^n = a^{mn}$

d) $a^0 = 1 \quad (a \neq 0)$

e) $\left(x^m\right)^n = \left(x^n\right)^m$

f) $a \cdot x^m = a^m \cdot x^m$

(i) {b,e} (ii) {d,e} (iii) {c,f,d} (iv) {a,d} (v) {a,e,d}

15. $-1^6 =$

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

16. $-1^5 =$

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

17. $10^0 =$

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

18. $0^0 =$

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

19. $-9^0 =$

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

20. $0^3 =$

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

21. $m^3 =$

22. $b^4 c^3 =$

- (i) $3 \times b \times b \times b \times b \times c \times c \times c$
 - (ii) $b \times b \times b \times c \times c \times c$
 - (iii) $b \times b \times b \times b \times c \times c \times c$
 - (iv) $-2 \times b \times b \times b \times b \times c \times c \times c$
 - (v) $b \times b \times b \times b \times b \times c \times c \times c$
-

23. $i^3 j^2 k^4 =$

- (i) $i \times i \times i \times i \times j \times j \times k \times k \times k \times k$
 - (ii) $i \times i \times j \times j \times k \times k \times k \times k$
 - (iii) $i \times i \times i \times j \times j \times k \times k \times k \times k$
 - (iv) $4 \times i \times i \times i \times j \times j \times k \times k \times k \times k$
 - (v) $-2 \times i \times i \times i \times j \times j \times k \times k \times k \times k$
-

24. $b \times b =$

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

25. $i \times i \times i \times i \times j \times j \times j =$

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

26. $9 \times b \times b \times b \times b \times c \times c \times d \times d \times d \times d =$

- (i) $9b^4c^2d^4$
 - (ii) $9b^3c^2d^4$
 - (iii) $6b^4c^2d^4$
 - (iv) $9b^5c^2d^4$
 - (v) $12b^4c^2d^4$
-

27. The expanded form of $(-3f)^3$ is

- (i) $(-3f) \times (-3f) \times (-3f) \times (-3f)$
 - (ii) $(-3f) \times (-3f)$
 - (iii) $(-3f) \times (-3f) \times (-3f)$
 - (iv) $(-3f) \times (-3f) \times (-3f) \times (-3f) \times (-3f)$
 - (v) $(-3f)$
-

28. The expanded form of $(\frac{1}{3}o)^3$ is

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

29. The expanded form of $(-3xy)^3$ is

- (i) $(-3xy) \times (-3xy)$
 - (ii) $(-3xy) \times (-3xy) \times (-3xy) \times (-3xy) \times (-3xy)$
 - (iii) $(-3xy) \times (-3xy) \times (-3xy)$
 - (iv) $(-3xy)$
 - (v) $(-3xy) \times (-3xy) \times (-3xy) \times (-3xy)$
-

30. The expanded form of $(\frac{1}{2}de)^3$ is

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

31. The expanded form of $(-3r + 2)^3$ is

- (i) $(-3r + 2) \times (-3r + 2) \times (-3r + 2) \times (-3r + 2) \times (-3r + 2)$
 - (ii) $(-3r + 2) \times (-3r + 2)$
 - (iii) $(-3r + 2)$
 - (iv) $(-3r + 2) \times (-3r + 2) \times (-3r + 2) \times (-3r + 2)$
 - (v) $(-3r + 2) \times (-3r + 2) \times (-3r + 2)$
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Assignment Key

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