EduSahara™ Assignment

Name : Finding Values of Expressions

Chapter : Expansions

Grade : ICSE Grade IX

1. If $\left(x+\frac{1}{x}\right)=9$, find the value of $\left(x^2+\frac{1}{x^2}\right)$

(i) 79 (ii) 78 (iii) 80 (iv) 76 (v) 82

2. If $\left(x+\frac{1}{x}\right)=3$, find the value of $\left(x^4+\frac{1}{x^4}\right)$

(i) 49 (ii) 46 (iii) 48 (iv) 47 (v) 45

3. If $\left(x-\frac{1}{x}\right)=4$, find the value of $\left(x^2+\frac{1}{x^2}\right)$

(i) 15 (ii) 19 (iii) 21 (iv) 18 (v) 17

4. If $\left(x-\frac{1}{x}\right)=3$, find the value of $\left(x^4+\frac{1}{x^4}\right)$

(i) 116 (ii) 118 (iii) 119 (iv) 122 (v) 120

5. If $\left(x^2+\frac{1}{x^2}\right)=2$, find the value of $\left(x+\frac{1}{x}\right)$

(i) 1 (ii) 2 (iii) 3 (iv) 0 (v) 5

6. If $\left(x^4+\frac{1}{x^4}\right)=2207$, find the value of $\left(x+\frac{1}{x}\right)$

(i) 6 (ii) 10 (iii) 4 (iv) 8 (v) 7

7. If $\left(x^2+\frac{1}{x^2}\right)=6$, find the value of $\left(x-\frac{1}{x}\right)$

(i) 2 (ii) -1 (iii) 3 (iv) 4 (v) 1

8. If $\left(x^4+\frac{1}{x^4}\right)=322$, find the value of $\left(x-\frac{1}{x}\right)$

(i) 1 (ii) 3 (iii) 5 (iv) 4 (v) 6

9. If $\left(x-\frac{1}{x}\right)=7$, find the value of $\left(x^3-\frac{1}{x^3}\right)$

(i) 364 (ii) 367 (iii) 365 (iv) 363 (v) 362

10. If $\left(x+\frac{1}{x}\right)=2$, find the value of $\left(x^3+\frac{1}{x^3}\right)$

(i) 2 (ii) 1 (iii) 4 (iv) 3 (v) 0

11. If $\left(2x+\frac{1}{2x}\right)=3$, find the value of $\left(4x^2+\frac{1}{4x^2}\right)$

(i) 8 (ii) 4 (iii) 6 (iv) 10 (v) 7

12. If $\left(2x-\frac{1}{3x}\right)=2$, find the value of $\left(4x^2+\frac{1}{9x^2}\right)$

(i) 6 (ii) $\frac{14}{3}$ (iii) $\frac{26}{5}$ (iv) $\frac{16}{3}$

13. If $\left(2x-\frac{1}{3x}\right)=2$, find the value of $\left(8x^3-\frac{1}{27x^3}\right)$

(i) 9 (ii) 14 (iii) 11 (iv) 13 (v) 12

14. If $(a+b)=8$, $ab=12$, find (a^2+b^2)

(i) 41 (ii) 39 (iii) 42 (iv) 40 (v) 38

15. If $(a^2+b^2)=29$, $ab=10$, find $(a+b)$

(i) 9 (ii) 8 (iii) 7 (iv) 6 (v) 5

16. If $(a-b)=3$, $ab=10$, find (a^2-b^2)

(i) 20 (ii) 21 (iii) 22 (iv) 23 (v) 18

17. If $(a^2-b^2)=9$, $ab=20$, find $(a-b)$

(i) 1 (ii) 2 (iii) 3 (iv) -1 (v) 0

18. If $(4a+7b)=38$, $ab=12$, find $(16a^2+49b^2)$

(i) 771 (ii) 770 (iii) 775 (iv) 773 (v) 772

19. If $(25a^2+16b^2)=1044$, $ab=18$, find $(5a+4b)$

(i) 45 (ii) 42 (iii) 41 (iv) 43 (v) 39

20. If $(a+b)=9$, $ab=20$, find (a^3+b^3)

(i) 188 (ii) 186 (iii) 190 (iv) 191 (v) 189

21. If $(a-b)=3$, $ab=18$, find (a^3-b^3)

(i) 191 (ii) 189 (iii) 186 (iv) 188 (v) 190

22. If $(4a+4b)=36$, $ab=18$, find $(64a^3+64b^3)$

(i) 15552 (ii) 15549 (iii) 15551 (iv) 15553 (v) 15555

23. If $(a+b)=8$, $ab=15$, find (a^4+b^4)

(i) 708 (ii) 706 (iii) 707 (iv) 703 (v) 705

24. If $(a^4+b^4)=1377$, $ab=18$, find $(a+b)$

(i) 8 (ii) 11 (iii) 9 (iv) 6 (v) 10

25. If $(a-b)=3$, $ab=18$, find (a^4-b^4)

(i) 1214 (ii) 1216 (iii) 1215 (iv) 1213 (v) 1217

26. If $(3a+4b)=31$, $ab=20$, find $(81a^4+256b^4)$

(i) 116160 (ii) 116161 (iii) 116162 (iv) 116158 (v) 116163

27. If $(256a^4+81b^4)=72097$, $ab=12$, find $(4a+3b)$

(i) 28 (ii) 22 (iii) 26 (iv) 24 (v) 25

28. If $(a+b+c)=16$, $(a^2+b^2+c^2)=86$, find $(ab+ac+bc)$

(i) 82 (ii) 85 (iii) 88 (iv) 86 (v) 84

29. If $(a+b+c)=16$, $(ab+ac+bc)=83$, find $(a^2+b^2+c^2)$

(i) 89 (ii) 90 (iii) 93 (iv) 87 (v) 91

Assignment Key

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