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) 80 (ii) 79 (iii) 77 (iv) 78 (v) 82

2. If $\left(x+\frac{1}{x}\right)=5$, find the value of $\left(x^4+\frac{1}{x^4}\right)$

(i) 530 (ii) 526 (iii) 528 (iv) 524 (v) 527

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

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

4. If $\left(x-\frac{1}{x}\right)=7$, find the value of $\left(x^4+\frac{1}{x^4}\right)$

(i) 2601 (ii) 2600 (iii) 2599 (iv) 2596 (v) 2598

5. If $\left(x^2+\frac{1}{x^2}\right)=23$, find the value of $\left(x+\frac{1}{x}\right)$

(i) 6 (ii) 2 (iii) 4 (iv) 5 (v) 8

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

(i) 7 (ii) 10 (iii) 6 (iv) 5 (v) 8

7. If $\left(x^2+\frac{1}{x^2}\right)=18$, find the value of $\left(x-\frac{1}{x}\right)$

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

8. If $\left(x^4+\frac{1}{x^4}\right)=2599$, find the value of $\left(x-\frac{1}{x}\right)$

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

9. If $\left(x-\frac{1}{x}\right)=5$, find the value of $\left(x^3-\frac{1}{x^3}\right)$

(i) 143 (ii) 137 (iii) 141 (iv) 139 (v) 140

10. If $\left(x+\frac{1}{x}\right)=8$, find the value of $\left(x^3+\frac{1}{x^3}\right)$

(i) 485 (ii) 488 (iii) 490 (iv) 489 (v) 487

11. If $\left(6x+\frac{1}{2x}\right)=8$, find the value of $\left(36x^2+\frac{1}{4x^2}\right)$

(i) 57 (ii) 55 (iii) 60 (iv) 59 (v) 58

12. If $\left(5x-\frac{1}{3x}\right)=2$, find the value of $\left(25x^2+\frac{1}{9x^2}\right)$

(i) 8 (ii) $\frac{22}{3}$ (iii) $\frac{20}{3}$ (iv) $\frac{36}{5}$

13. If $\left(3x-\frac{1}{3x}\right)=6$, find the value of $\left(27x^3-\frac{1}{27x^3}\right)$

(i) 234 (ii) 233 (iii) 231 (iv) 236 (v) 235

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

(i) 40 (ii) 43 (iii) 39 (iv) 38 (v) 41

15. If $(a^2+b^2)=25$, $ab=12$, find $(a+b)$

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

16. If $(a-b)=1$, $ab=20$, find (a^2-b^2)

(i) 12 (ii) 7 (iii) 9 (iv) 10 (v) 8

17. If $(a^2-b^2)=24$, $ab=35$, find $(a-b)$

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

18. If $(4a+5b)=22$, $ab=6$, find $(16a^2+25b^2)$

(i) 243 (ii) 246 (iii) 244 (iv) 245 (v) 241

19. If $(64a^2+49b^2)=1796$, $ab=10$, find $(8a+7b)$

(i) 54 (ii) 53 (iii) 55 (iv) 51 (v) 56

20. If $(a+b)=8$, $ab=15$, find (a^3+b^3)

(i) 151 (ii) 154 (iii) 152 (iv) 150 (v) 153

21. If $(a-b)=1$, $ab=6$, find (a^3-b^3)

(i) 19 (ii) 20 (iii) 18 (iv) 22 (v) 16

22. If $(4a+4b)=44$, $ab=30$, find $(64a^3+64b^3)$

(i) 21822 (ii) 21825 (iii) 21824 (iv) 21827 (v) 21823

23. If $(a+b)=9$, $ab=20$, find (a^4+b^4)

(i) 882 (ii) 880 (iii) 879 (iv) 881 (v) 883

24. If $(a^4+b^4)=97$, $ab=6$, find $(a+b)$

(i) 5 (ii) 2 (iii) 8 (iv) 6 (v) 4

25. If $(a-b)=1$, $ab=12$, find (a^4-b^4)

(i) 176 (ii) 172 (iii) 175 (iv) 174 (v) 177

26. If $(4a+4b)=44$, $ab=30$, find $(256a^4+256b^4)$

(i) 491779 (ii) 491776 (iii) 491775 (iv) 491773 (v) 491777

27. If $(256a^4+256b^4)=225536$, $ab=20$, find $(4a+4b)$

(i) 35 (ii) 36 (iii) 37 (iv) 38 (v) 33

28. If $(a+b+c)=11$, $(a^2+b^2+c^2)=59$, find $(ab+ac+bc)$

(i) 32 (ii) 34 (iii) 29 (iv) 31 (v) 30

29. If $(a+b+c)=14$, $(ab+ac+bc)=63$, find $(a^2+b^2+c^2)$

(i) 71 (ii) 68 (iii) 69 (iv) 73 (v) 70

Assignment Key

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