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

(i) 22 (ii) 24 (iii) 23 (iv) 25 (v) 20

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

(i) 3843 (ii) 3842 (iii) 3840 (iv) 3841 (v) 3844

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

(i) 11 (ii) 8 (iii) 12 (iv) 13 (v) 10

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

(i) 1441 (ii) 1440 (iii) 1442 (iv) 1445 (v) 1443

5. If $\left(x^2+\frac{1}{x^2}\right)=79$, find the value of $\left(x+\frac{1}{x}\right)$

(i) 8 (ii) 6 (iii) 9 (iv) 12 (v) 10

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

(i) 5 (ii) 6 (iii) 10 (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) -1 (iv) 3 (v) 4

8. If $\left(x^4+\frac{1}{x^4}\right)=34$, find the value of $\left(x-\frac{1}{x}\right)$

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

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

(i) 233 (ii) 237 (iii) 231 (iv) 235 (v) 234

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

(i) 197 (ii) 200 (iii) 195 (iv) 198 (v) 199

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

(i) 11 (ii) 14 (iii) 12 (iv) 15 (v) 13

12. If $\left(2x-\frac{1}{3x}\right)=8$, find the value of $\left(4x^2+\frac{1}{9x^2}\right)$

(i) 66 (ii) $\frac{196}{3}$ (iii) $\frac{326}{5}$ (iv) $\frac{194}{3}$

13. If $\left(3x-\frac{1}{3x}\right)=4$, find the value of $\left(27x^3-\frac{1}{27x^3}\right)$

(i) 74 (ii) 77 (iii) 76 (iv) 78 (v) 75

14. If $(a+b)=5$, $ab=6$, find (a^2+b^2)

(i) 14 (ii) 12 (iii) 10 (iv) 15 (v) 13

15. If $(a^2+b^2)=13$, $ab=6$, find $(a+b)$

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

16. If $(a-b)=3$, $ab=18$, find (a^2-b^2)

(i) 29 (ii) 27 (iii) 28 (iv) 26 (v) 25

17. If $(a^2-b^2)=7$, $ab=12$, find $(a-b)$

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

18. If $(8a+6b)=50$, $ab=12$, find $(64a^2+36b^2)$

(i) 1349 (ii) 1350 (iii) 1347 (iv) 1345 (v) 1348

19. If $(16a^2+16b^2)=544$, $ab=15$, find $(4a+4b)$

(i) 31 (ii) 35 (iii) 33 (iv) 30 (v) 32

20. If $(a+b)=10$, $ab=24$, find (a^3+b^3)

(i) 281 (ii) 279 (iii) 280 (iv) 277 (v) 283

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

(i) 188 (ii) 186 (iii) 192 (iv) 190 (v) 189

22. If $(6a+6b)=54$, $ab=18$, find $(216a^3+216b^3)$

(i) 52491 (ii) 52488 (iii) 52485 (iv) 52487 (v) 52489

23. If $(a+b)=9$, $ab=18$, find (a^4+b^4)

(i) 1378 (ii) 1377 (iii) 1376 (iv) 1379 (v) 1374

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

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

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

(i) 1283 (ii) 1278 (iii) 1281 (iv) 1279 (v) 1280

26. If $(4a+3b)=22$, $ab=8$, find $(256a^4+81b^4)$

(i) 66835 (ii) 66832 (iii) 66830 (iv) 66831 (v) 66833

27. If $(16a^4+256b^4)=8192$, $ab=8$, find $(2a+4b)$

(i) 16 (ii) 14 (iii) 15 (iv) 18 (v) 17

28. If $(a+b+c)=17$, $(a^2+b^2+c^2)=117$, find $(ab+ac+bc)$

(i) 88 (ii) 83 (iii) 86 (iv) 87 (v) 85

29. If $(a+b+c)=7$, $(ab+ac+bc)=15$, find $(a^2+b^2+c^2)$

(i) 19 (ii) 20 (iii) 18 (iv) 22 (v) 17

Assignment Key

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