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

(i) 25 (ii) 22 (iii) 23 (iv) 24 (v) 21

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) 3844 (v) 3841

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

(i) 5 (ii) 7 (iii) 8 (iv) 6 (v) 3

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

(i) 319 (ii) 323 (iii) 322 (iv) 324 (v) 321

5. If $\left(x^2+\frac{1}{x^2}\right)=62$, find the value of $\left(x+\frac{1}{x}\right)$

(i) 11 (ii) 7 (iii) 6 (iv) 8 (v) 9

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

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

7. If $\left(x^2+\frac{1}{x^2}\right)=66$, find the value of $\left(x-\frac{1}{x}\right)$

(i) 8 (ii) 7 (iii) 9 (iv) 11 (v) 5

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) 2 (iv) 4 (v) 1

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

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

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

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

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

(i) 62 (ii) 60 (iii) 61 (iv) 65 (v) 63

12. If $\left(6x-\frac{1}{3x}\right)=6$, find the value of $\left(36x^2+\frac{1}{9x^2}\right)$

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

13. If $\left(2x-\frac{1}{3x}\right)=7$, find the value of $\left(8x^3-\frac{1}{27x^3}\right)$

(i) 355 (ii) 358 (iii) 357 (iv) 360 (v) 356

14. If $(a+b)=9$, $ab=20$, find (a^2+b^2)

(i) 42 (ii) 41 (iii) 39 (iv) 40 (v) 44

15. If $(a^2+b^2)=40$, $ab=12$, find $(a+b)$

(i) 7 (ii) 8 (iii) 5 (iv) 9 (v) 10

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

(i) 20 (ii) 19 (iii) 17 (iv) 21 (v) 22

17. If $(a^2-b^2)=20$, $ab=24$, find $(a-b)$

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

18. If $(3a+7b)=46$, $ab=24$, find $(9a^2+49b^2)$

(i) 1109 (ii) 1105 (iii) 1107 (iv) 1108 (v) 1111

19. If $(64a^2+4b^2)=1040$, $ab=8$, find $(8a+2b)$

(i) 35 (ii) 36 (iii) 37 (iv) 38 (v) 34

20. If $(a+b)=9$, $ab=18$, find (a^3+b^3)

(i) 241 (ii) 243 (iii) 246 (iv) 242 (v) 244

21. If $(a-b)=1$, $ab=30$, find (a^3-b^3)

(i) 90 (ii) 92 (iii) 89 (iv) 94 (v) 91

22. If $(6a+6b)=60$, $ab=24$, find $(216a^3+216b^3)$

(i) 60480 (ii) 60483 (iii) 60481 (iv) 60479 (v) 60477

23. If $(a+b)=8$, $ab=12$, find (a^4+b^4)

(i) 1309 (ii) 1314 (iii) 1313 (iv) 1312 (v) 1311

24. If $(a^4+b^4)=1552$, $ab=24$, find $(a+b)$

(i) 12 (ii) 9 (iii) 10 (iv) 8 (v) 11

25. If $(a-b)=1$, $ab=20$, find (a^4-b^4)

(i) 369 (ii) 370 (iii) 367 (iv) 371 (v) 368

26. If $(4a+3b)=39$, $ab=30$, find $(256a^4+81b^4)$

(i) 382403 (ii) 382398 (iii) 382401 (iv) 382400 (v) 382402

27. If $(256a^4+16b^4)=161296$, $ab=15$, find $(4a+2b)$

(i) 25 (ii) 23 (iii) 29 (iv) 27 (v) 26

28. If $(a+b+c)=16$, $(a^2+b^2+c^2)=94$, find $(ab+ac+bc)$

(i) 82 (ii) 83 (iii) 81 (iv) 80 (v) 78

29. If $(a+b+c)=15$, $(ab+ac+bc)=72$, find $(a^2+b^2+c^2)$

(i) 82 (ii) 84 (iii) 78 (iv) 80 (v) 81

Assignment Key

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