



1. D4, F6, H8, J10, ?

Logic: Letter position matches the number.
Constant +2 jump.

Calc: $J(10) + 2 = L(12)$.

Result: L12

2. Z1, X2, U6, Q24, ?

Logic: Letters: -2, -3, -4, -5. Numbers: $\times 1$, $\times 2$, $\times 3$, $\times 4$.

Calc: $Q(17) - 5 = L(12)$. $24 \times 5 = 120$.

Result: L120

3. B2, D16, F36, H64, ?

Logic: Letter followed by the square of its position.

Calc: J is 10th letter. $10^2 = 100$.

Result: J100

4. 2Z5, 7X7, 14V9, 23T11, ?

Logic: Prefix: +5, +7, +9, +11. Letter: -2.
Suffix: +2.

Calc: $23 + 13 = 36$. $T - 2 = R$. $11 + 2 = 13$.

Result: 36R13

5. N5V, K7T, H10R, E14P, ?

Logic: 1st Letter: -3. Number: +2, +3, +4, +5. Last Letter: -2.

Calc: $E - 3 = B$. $14 + 5 = 19$. $P - 2 = N$.

Result: B19N

6. 10A, 13C, 19F, 28J, ?

Logic: Number: +3, +6, +9, +12. Letter: +2, +3, +4, +5.

Calc: $28 + 12 = 40$. $J + 5 = O$.

Result: 40O

7. A1Z, E5V, I9R, M13N, ?

Logic: Number is the position of the 1st letter. 1st letter +4. 2nd letter is opposite.

Calc: $M + 4 = Q$. Position is 17. Opposite of Q is J.

Result: Q17J

8. 3C, 8H, 15O, 24X, ?

Logic: $n^2 - 1$ where n is the letter position.
(Wait, check: $2^2 - 1 = 3$, $3^2 - 1 = 8$...)

Logic: Number is $(\text{Position})^2 - 1$. Letters: C(3), H(8), O(15), X(24).

Calc: Next position is 35 (too high). Letters are +5, +7, +9...

Result: 35I ($35 \bmod 26$)

9. P3C, R5F, T8I, V12L, ?

Logic: 1st Letter: +2. Number: +2, +3, +4, +5. Last Letter: +3.

Calc: $V + 2 = X$. $12 + 5 = 17$. $L + 3 = O$.

Result: X17O

10. 2A11, 4D13, 12G17, 48J23, ?

Logic: Prefix: $\times 2$, $\times 3$, $\times 4$, $\times 5$. Letter: +3.
Suffix: Consecutive Primes.

Calc: $48 \times 5 = 240$. $J + 3 = M$. Next Prime = 29.

Result: 240M29

11. C4X, F9U, I16R, L25O, ?

Logic: 1st Letter: +3. Number: Squares.
Last Letter: Opposites.

Calc: $L + 3 = O$. $6^2 = 36$. Opposite of O is L.

Result: O36L

12. Q1F, S2E, U6D, W21C, ?

Logic: 1st Letter: +2. Number: $(n \times 1 + 1)$, $(n \times 2 + 2)$, $(n \times 3 + 3)$. Last Letter: -1.

Calc: $W + 2 = Y$. $21 \times 4 + 4 = 88$. $C - 1 = B$.

Result: Y88B

13. 4D, 9I, 16P, 25Y, ?

Logic: Number is the square of the letter's position.

Calc: $6^2 = 36$. $36 \bmod 26 = 10$ (J).

Result: 36J

14. 1Z1, 2X8, 3V27, 4T64, ?

Logic: 1st Number: n. Letter: -2. 2nd Number: n^3 .

Calc: $5, T - 2 = R$, $5^3 = 125$.

Result: 5R125

15. M13, K11, I9, G7, ?



Logic: Rank of letter. Gap of -2.
Result: E5

16. 2B, 4D, 8H, 16P, ?

Logic: Number doubles. Letter doubles position ($\times 2$).

Calc: $16 \times 2 = 32$. P(16) $\times 2 = 32 \rightarrow$ F.
Result: 32F

17. K1, M3, P6, T10, ?

Logic: Letter: +2, +3, +4, +5. Number: +2, +3, +4.

Calc: T + 5 = Y. $10 + 5 = 15$.
Result: Y15

18. A2, D4, I8, P16, ?

Logic: Letter: n^2 . Number: 2^n .
Calc: $5^2 = 25$ (Y). $2^5 = 32$.
Result: Y32

19. B25, E22, I18, N13, ?

Logic: Number is the reverse rank of the letter (Sum = 27).

Calc: N + 6 = T(20). Reverse rank: $27 - 20 = 7$.
Result: T7

20. 5G, 10J, 15M, 20P, ?

Logic: Number: +5. Letter: +3.
Result: 25S

21. Z52, X48, V44, T40, ?

Logic: Number is Letter Position $\times 2$.
Calc: T - 2 = R(18). $18 \times 2 = 36$.
Result: R36

22. 1A, 2D, 3I, 4P, ?

Logic: Number: n. Letter: n^2 .
Calc: $5, 5^2 = 25$ (Y).
Result: 5Y

23. J10, L12, O15, S19, ?

Logic: Letter Rank matches Number.
Calc: S + 5 = X(24).

Result: X24

24. 23W, 21U, 18R, 14N, ?

Logic: Number matches Letter Rank. Gaps: -2, -3, -4, -5.

Calc: $14 - 5 = 9$ (I).
Result: 9I

25. A1, C4, E9, G16, ?

Logic: Odd letters. Number: Squares of 1, 2, 3, 4, 5.

Result: I25

26. 6F, 12L, 18R, 24X, ?

Logic: Multiples of 6.
Calc: $30 \bmod 26 = 4$ (D).
Result: 30D

27. 2, B, 4, D, 8, H, 16, ?

Logic: Doubling series.
Result: P

28. Z1, Y2, X3, W4, ?

Logic: Reverse letters. Number: n.
Result: V5

29. B2, E5, H8, K11, ?

Logic: Letter Rank.
Result: N14

30. 100Z, 81Y, 64X, 49W, ?

Logic: Squares descending. Letters descending.

Result: 36V

31. AB1, CD4, EF9, GH16, ?

Logic: Letter pairs. Number: n^2 .
Result: IJ25

32. 3C, 6F, 9I, 12L, ?

Logic: Table of 3.
Result: 15O

33. D2, G4, J8, M16, ?

Logic: Letter +3. Number doubles.
Result: P32



34. 1A, 4B, 9C, 16D, ?
Logic: Square followed by consecutive letter.

Result: 25E

35. E5, J10, O15, T20, ?

Logic: EJOTY logic.

Result: Y25

36. 121K, 144L, 169M, 196N, ?

Logic: Square of letter position.

Result: 225O

37. A, 1, C, 3, E, 5, ?

Logic: Alternating Letter/Rank.

Result: G

38. 2Z, 4X, 6V, 8T, ?

Logic: Even numbers. Reverse letters.

Result: 10R

39. P16, Q17, R18, S19, ?

Logic: Rank.

Result: T20

40. 1Z, 4X, 9V, 16T, ?

Logic: Squares. Letters -2.

Result: 25R

41. B, 4, F, 36, J, 100, ?

Logic: Letter (+4). Number is square of rank.

Calc: $J + 4 = N(14)$. $14^2 = 196$.

Result: N196

42. 8H, 7G, 6F, 5E, ?

Logic: Rank followed by Letter.

Result: 4D

43. 3, F, 6, L, 9, R, ?

Logic: Rank is Number \times 2.

Calc: $12, 12 \times 2 = 24(X)$.

Result: 12X

44. Z1, W4, T7, Q10, ?

Logic: Letters -3. Numbers +3.

Result: N13

45. 2A, 6C, 10E, 14G, ?

Logic: Numbers +4. Letters +2.

Result: 18I

46. M13, N14, O15, P16, ?

Logic: Consecutive.

Result: Q17

47. 1, A, 8, H, 27, S, ?

Logic: Cube followed by Letter of that rank.

Calc: $4^3 = 64$

Result: 64

48. B2, D4, F6, H8, ?

Logic: Rank match.

Result: J10

49. 5, E, 10, J, 15, O, ?

Logic: Multiples of 5.

Result: 20, T

50. 26Z, 25Y, 24X, 23W, ?

Logic: Rank and Letter.

Result: 22V