

The Vedic Speed Kit

Five classical techniques that turn exam arithmetic into one-line answers — with worked steps, 20 practice problems, and the speed tables toppers know cold.

For IBPS · SBI · SSC · Railway quant.

Vedic Squaring

Squares the exam loves: numbers ending in 5 (Ekadhikena — multiply the head by its successor, append 25) and numbers near a base like 100 (Yavadunam — slide by the deficit, append its square). Both turn a two-digit multiplication into one small step you can do while reading the next line.

WORKED EXAMPLE

$95^2 = ?$

1. 95 is 5 below 100 — Yavadunam: go the deficit again: $95 - 5 = 90$.
2. Append the deficit squared in 2 digits: $5^2 = 25 \rightarrow 90 \mid 25 \rightarrow 9025$.
3. Answer: 9025.

NOW YOU — UNDER 30 SECONDS EACH

1. $108^2 = ?$

11664 · 11600 · 11667 · 10064 · 11764

2. $93^2 = ?$

10049 · 8600 · 8652 · 8649 · 8749

3. $113^2 = ?$

12769 · 12600 · 12772 · 10169 · 126169

4. $85^2 = ?$

7225 · 6425 · 8125 · 7255 · 7228

Drill this against a real clock: computeprep.com/?drill=vedic_squaring

Complementary Products

When two numbers share the same tens digit and their units digits add to 10 (like 43×47), the answer assembles itself: head times its successor, then the product of the units. Antyayordashake — spot the pattern and the multiplication is over before it starts.

WORKED EXAMPLE

$96 \times 94 = ?$

1. Units $6 + 4 = 10$ with the same lead 9 — Antyayordashake applies.
2. Left: $9 \times 10 = 90$. Right: $6 \times 4 = 24$ (always two digits).
3. $90 \mid 24 \rightarrow 9024$.
4. Answer: 9024.

NOW YOU — UNDER 30 SECONDS EACH

5. $33 \times 37 = ?$

1224 · 1210 · 1221 · 1231 · 921

6. $55 \times 55 = ?$

3035 · 3028 · 3010 · 3025 · 2525

7. $62 \times 68 = ?$

3616 · 4216 · 4219 · 4226 · 4210

8. $41 \times 49 = ?$

2010 · 2012 · 1609 · 209 · 2009

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Difference of Squares

Any product of two numbers the same distance either side of a round midpoint (like 38×42) is the midpoint's square minus the distance's square. Sankalana-vyavakalanabhyam — one known square, one tiny square, one subtraction.

WORKED EXAMPLE

$24 \times 26 = ?$

1. 24 and 26 straddle 25 by 1 — Sankalana: $a \times b = m^2 - d^2$.
2. $25^2 - 1^2 = 625 - 1 = 624$.
3. Answer: 624.

NOW YOU — UNDER 30 SECONDS EACH

9. $39 \times 47 = ?$

1836 · 1865 · 1849 · 1521 · 1833

10. $55 \times 57 = ?$

3025 · 3137 · 3135 · 3136 · 3138

11. $36 \times 42 = ?$

1512 · 1296 · 1515 · 1530 · 1521

12. $26 \times 34 = ?$

887 · 916 · 900 · 676 · 884

Drill this against a real clock: computeprep.com/?drill=difference_of_squares

Nikhilam Multiplication

Multiplying two numbers near a base (98×93 , 104×107): work with their small deficits or surpluses instead of the numbers themselves. Cross-add for the head, multiply the deviations for the tail — and mind the carry, which is exactly the mistake the exam's wrong options are built from.

WORKED EXAMPLE

$703 \times 860 = ?$

1. Choose the base (nearest power of 10): 1000.
2. Distance from base: 703 is 297 below 1000, 860 is 140 below 1000.
3. Cross-subtract: $703 - 140 = 563$ (same as $860 - 297$).
4. Multiply the distances: $297 \times 140 = 41580$.
5. Base 1000 has 3 zeros, so the right-hand part must occupy exactly 3 digits.
6. 41580 needs 5 digits — one too many, so carry 41 into the left part.
7. Left part: $563 + 41 = 604$. Right part: 580.
8. Write them side by side: $604 \mid 580 = 604580$.

NOW YOU — UNDER 30 SECONDS EACH

13. $1015 \times 1233 = ?$

1251495 · 1016233 · 2248000 · 1234015 · 12483495

14. $114 \times 124 = ?$

23800 · 12514 · 11524 · 138336 · 14136

15. $802 \times 956 = ?$

802956 · 766712 · 956802 · 1758000 · 7588712

16. $72 \times 90 = ?$

6480 · 7290 · 62280 · 9072 · 16200

Drill this against a real clock: computeprep.com/?drill=nikhilam

Crosswise Multiplication

Urdhva-Tiryagbhyam, the general-purpose one: any two-digit multiplication in a single left-to-right sweep — vertical, crosswise, vertical — with nothing written down but the answer. The $\times 11$ family is its warm-up case and a one-second exam win.

WORKED EXAMPLE

$$37 \times 82 = ?$$

1. Units: $7 \times 2 = 14$.
2. Cross: $3 \times 2 + 7 \times 8 = 62$; tens: $3 \times 8 = 24$ — stack with carries.
3. $2400 + 620 + 14 = 3034$.
4. Answer: 3034.

NOW YOU — UNDER 30 SECONDS EACH

17. $40 \times 72 = ?$

2890 · 2800 · 2877 · 2883 · 2880

18. $44 \times 84 = ?$

3536 · 3699 · 3286 · 3696 · 3376

19. $86 \times 49 = ?$

4217 · 3264 · 3974 · 4214 · 3494

20. $21 \times 63 = ?$

1263 · 1326 · 1323 · 1223 · 1320

Drill this against a real clock: computeprep.com/?drill=urdhva_multiplication

The Speed Tables

Percentages and powers the paper assumes you know without computing. Read a row a day; the daily drills will make them stick.

FRACTION	PERCENT
1/2	50%
1/3	33.33%
2/3	66.67%
1/4	25%
3/4	75%
1/5	20%
2/5	40%
3/5	60%
4/5	80%
1/6	16.67%
5/6	83.33%
1/8	12.5%
3/8	37.5%
5/8	62.5%
7/8	87.5%
1/9	11.11%
1/11	9.09%
1/12	8.33%

N	N²
11	121
12	144
13	169
14	196
15	225
16	256
17	289
18	324
19	361
20	400
21	441
22	484
23	529
24	576
25	625
26	676
27	729
28	784
29	841
30	900

CUBES

6³	7³	8³	9³	10³	11³	12³	13³	14³	15³
216	343	512	729	1000	1331	1728	2197	2744	3375

Answer Key

Vedic Squaring: 1) 11664 2) 8649 3) 12769 4) 7225

Complementary Products: 5) 1221 6) 3025 7) 4216 8) 2009

Difference of Squares: 9) 1833 10) 3135 11) 1512 12) 884

Nikhilam Multiplication: 13) 1251495 14) 14136 15) 766712 16) 6480

Crosswise Multiplication: 17) 2880 18) 3696 19) 4214 20) 1323

Make it a reflex: one timed drill a day.

These techniques only pay off at exam speed, and speed only comes from a clock. ComputePrep serves a free timed drill every day across all five vedic techniques plus 16 exam calculation types — with a leaderboard, a streak, and the full fast-method walkthrough after every round.

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