Mathematics Tricks and Shortcuts for CDS April 2026 Exam

Victor Growth

The **Combined Defence Services (CDS) Exam** is one of the most prestigious competitive exams in India, conducted by UPSC for aspirants aiming to join the Indian Armed Forces. The **Mathematics paper in CDS April 2026** carries 100 marks with 100 questions, making it one of the most scoring yet time-consuming sections. To maximize your score, mastering **mathematics tricks and shortcuts** is crucial.

In this guide, we'll cover the best **shortcuts, tricks, and preparation strategies** to help you solve CDS-level mathematics questions quickly and accurately.

Why Shortcuts Are Important for CDS Maths?

- **Time-saving:** With only 120 minutes for 100 questions, shortcuts save precious seconds per question.
- **Accuracy boost:** Using tested formulas and tricks reduces calculation errors.
- **Confidence in exam hall:** Knowing quick methods keeps you calm under pressure.
- **Scoring advantage:** Since maths has no sectional cutoff, high scoring in this section improves your overall selection chances.

Important CDS Mathematics Topics with Tricks

1. Arithmetic Shortcuts

- **Percentage to Fraction Conversion:**
    - 50% = 1/2, 33.33% = 1/3, 25% = 1/4, 20% = 1/5, 12.5% = 1/8.
    - Helps in solving profit-loss and ratio problems instantly.
- **Simple Interest (SI) & Compound Interest (CI):**
    - SI = (P × R × T) / 100.
    - For CI of 2 years = **P[(1 + R/100)² – 1]**.
    - Shortcut: Difference between CI and SI (2 years) = **P × (R²/10000)**.

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2. Algebra Tricks

- **Squares of Numbers Ending with 5:**
  - Example: $75^2 = (7\times8) \mid 25 = 5625$.
- **Cube Shortcut:**
  - $(a + b)^3 = a^3 + b^3 + 3ab(a+b)$.
  - Great for expansion-based problems.
- **Common Identities:**
  - $(a + b)^2 = a^2 + 2ab + b^2$.
  - $(a – b)^2 = a^2 – 2ab + b^2$.
  - $a^2 – b^2 = (a + b)(a – b)$.

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3. Geometry and Mensuration

- **Area of Right-Angled Triangle:**
  - Area = (1/2) × base × height.
- **Circle Shortcut:**
  - Circumference = $2\pi r$, Area = πr^2.
- **Trick:** In equilateral triangle with side ‘a’ → Height = $(\sqrt{3}/2)a$, Area = $(\sqrt{3}/4)a^2$.

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4. Trigonometry Shortcuts

- **Standard Values to Remember:**
  - $\sin 0° = 0$, $\sin 30° = 1/2$, $\sin 45° = \sqrt{2}/2$, $\sin 60° = \sqrt{3}/2$, $\sin 90° = 1$.
- **Key Identities:**
  - $\sin^2\theta + \cos^2\theta = 1$.
  - $1 + \tan^2\theta = \sec^2\theta$.
- **Shortcut for Heights & Distances:**
  - Use $\tan\theta$ = perpendicular/base and $\cot\theta$ = base/perpendicular.

5. Speed, Time, and Distance

- **Shortcut Relation:** Speed = Distance ÷ Time.
- **Conversions:**
    - 1 km/hr = 5/18 m/s, 1 m/s = 18/5 km/hr.
- **Relative Speed Trick:**
    - If moving in the same direction = (S1 – S2).
    - If opposite direction = (S1 + S2).

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6. Number System Shortcuts

- **Divisibility Rules:**
    - Divisible by 3 → Sum of digits divisible by 3.
    - Divisible by 11 → Difference of odd-even place digits divisible by 11.
- **HCF and LCM Shortcut:**
    - Product of two numbers = HCF × LCM.

Proven Strategies for CDS Maths 2026

1. **Practice Previous Year Papers:** Helps in understanding question patterns.
2. **Time-Bound Practice:** Use a stopwatch for speed enhancement.
3. **Memorize Squares & Cubes:** Learn up to 30 for quick calculations.
4. **Formula Chart:** Keep a one-page formula sheet for revision.
5. **Mock Tests:** Attempt at least 2–3 mock tests weekly.

Why Choose Victor Growth for CDS Preparation?

At **Victor Growth**, we provide:

- Expert faculty specializing in **CDS Mathematics tricks and shortcuts**.
- Exclusive **shortcuts handbooks** for quick revision.

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- Regular **mock tests and doubt-solving sessions**.
- Personalized mentorship to help aspirants clear CDS in the **first attempt**.

If you're serious about cracking CDS April 2026, **Victor Growth** is your trusted partner for success.

FAQs on CDS Mathematics Tricks & Shortcuts

Q1. How many questions are asked in CDS Maths?
Ans: There are **100 questions carrying 100 marks** in the Mathematics paper.

Q2. Are shortcuts enough to clear CDS Maths?
Ans: Shortcuts help save time, but regular practice and conceptual clarity are equally important.

Q3. Which book is best for CDS Maths shortcuts?
Ans: Books like **R.S. Aggarwal's Quantitative Aptitude** and **Pathfinder for CDS** cover shortcuts well, but joining **Victor Growth coaching** ensures structured learning.

Q4. Can I crack CDS Maths without coaching?
Ans: Yes, but with the right guidance from institutes like **Victor Growth**, you can save time and increase your accuracy.

Q5. How much time should I devote daily for CDS Maths?
Ans: Ideally, **2–3 hours daily** with a focus on problem-solving and revision of formulas.

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