CLAT Community

daily QT

SECTIONAL TEST

16

DAYS TO GO FOR

CLAT 2027

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OUR RANKERS

1 in every 4 of CLAT Community's students are now placed in Top 5 NLUs.



ALL INDIA RANK **15**

SAHER GOLE



ALL INDIA RANK **17**

PARTHIVA SUSHANTH



ALL INDIA RANK **61**

MIHIKA AGGARWAL



ALL INDIA RANK **79**

SUHIT KENDURKAR



ALL INDIA RANK **86**

RIYA CHAUHAN



ALL INDIA RANK **100**

SHEIKH EHSAAN KHALEELULLAH



ALL INDIA RANK **104**

HRISHIT PODDAR



ALL INDIA RANK **137**

ROHAN YADAV



ALL INDIA RANK **146**

TEJAS ROY



ALL INDIA RANK **147**

ANIRUDDH BAJAJ



ALL INDIA RANK **189**

KABIR WADHWANI



ALL INDIA RANK **263**

CANCHI SISTLA AKSHARA



ALL INDIA RANK **319**

SHIVAM TRIPATHI



ALL INDIA RANK **413**

HARDIK GAUTAM



ALL INDIA RANK **NLSIU**

MANYA BHASKAR



ALL INDIA RANK **NLSIU**

NAMASHRITA GOPINATH



ALL INDIA RANK **NLSIU**

RONIL DHASAL



ALL INDIA RANK **NALSAR**

VEDA RAO



ALL INDIA RANK **NLSIU**

SAMANDAR SINGH



ALL INDIA RANK **NALSAR**

GANJI HAINDAVI



ALL INDIA RANK **NALSAR**

SAHISHNA



ALL INDIA RANK **NLSIU**

PRANAV. S

AND MANY MORE.

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OUR COURSES

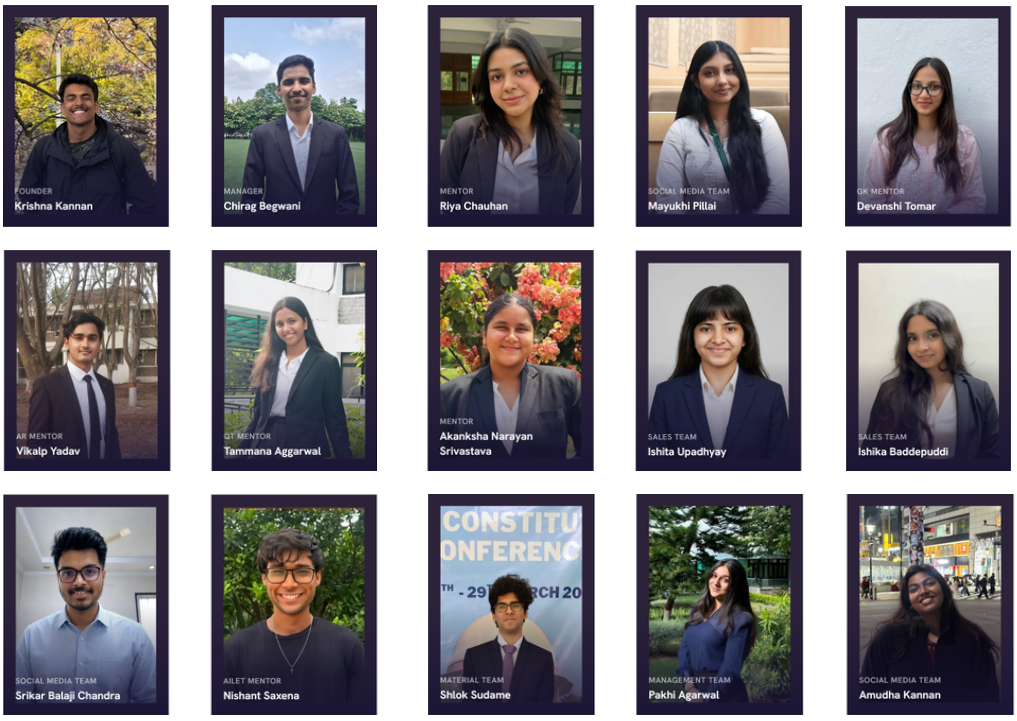








OUR MENTORS



MENTORS' NOTE

Good morning everyone,

If you're reading this, you're already doing something that thousands of CLAT aspirants never do—you've shown up today. That might sound like a small thing, but over the next few months you'll realise that success in CLAT is rarely decided by one brilliant mock or one 12-hour study session. It's decided by the hundreds of ordinary days where you choose to sit down and study even when you don't feel like it.

The entire CLAT Community team is rooting for you. Whenever you're stuck, ask doubts, discuss questions, and make use of the people around you. You don't have to prepare alone. We hope today's material helps you take one more step towards your dream.

Now stop reading this note and get to work. Your future self will thank you for the effort you put in today.

All the best.

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DAILY QT

PASSAGE 1 — TARGET RANGES: GEOMETRIC PROBABILITY ON A SQUARE BOARD

Target Ranges is a game studio that builds random-point challenges on flat square boards. A board is a square ABCD with side 4 units, and a dart lands at a point chosen uniformly at random inside the board, so that the probability of landing in any region equals the area of that region divided by the area of the board. Coordinates are set with A at the origin, B at (4, 0), C at (4, 4) and D at (0, 4).

Designers use several regions to construct challenges. One region is the square formed by joining the midpoints of the four sides of the board. Another is the triangle with vertices A, C and the midpoint of side BC. A third is a circle inscribed in the board, which touches all four sides. Some challenges reward darts that land close to an edge, so the designers measure the area within a fixed distance of the boundary, and others reward darts that are nearer to one corner than to its neighbouring corners.

Because the dart is uniform, the answers are always ratios of areas and never depend on the size of the board. Designers warn against two errors: counting a region twice when it overlaps, and forgetting that a circle's area involves π. Unless stated otherwise, the boundary of each region has zero area and therefore does not affect any probability.

1. The probability that the dart lands inside the square formed by joining the midpoints of the sides of the board is:

(A) 1/4

(B) 1/2

(C) 3/8

(D) 1/3

2. The probability that the dart lands inside the triangle with vertices A, C and the midpoint of BC is:

(A) 1/4

(B) 1/3

(C) 1/8

(D) 3/8

3. The probability that the dart lands inside the circle inscribed in the board is:

(A) π/3

(B) π/2

(C) π/4

(D) 1/3

4. The probability that the dart lands within distance 1 of the boundary of the board is:

(A) 1/2

(B) 3/4

(C) 1/4

(D) 5/8

5. The probability that the dart lands at a point closer to A than to B and also closer to A than to D is:

(A) 1/2

(B) 1/4

(C) 1/8

(D) 3/4

6. The probability that the dart lands at a point with $x + y \leq 2$ is:

(A) 1/4

(B) 1/8

(C) 1/16

(D) 3/16

PASSAGE 2 — COPRIME VAULT: COUNTING INTEGERS WITH NO COMMON FACTOR

Coprime Vault is a number-theory club that studies integers which share no common factor with a given number. Two integers are coprime when their greatest common divisor is 1. The club's standard counting tool is the sieve, in which multiples of each prime factor are removed from a list, and members are asked to combine the counts carefully when a number has several prime factors.

The club keeps a table of counts for the integers from 1 to 100 under several conditions. It records how many are coprime to 100, how many are divisible by 2 or by 5, and how many are coprime to 30. It also splits the list into halves, comparing the integers below 50 with those above 50, because the coprime counts on the two halves are equal for 100. Members are expected to explain why the halves match, not merely state the result.

The club's rules fix the range of integers in each question at the stated interval, and a number is never counted twice in a single total. Inclusion and exclusion is the method most often used, since it removes the overlap between multiples of 2 and multiples of 5 in one step. Unless stated otherwise, the integer 1 is coprime to every number, and every count refers to positive integers within the stated range.

7. The number of integers from 1 to 100 that are coprime to 100 is:

(A) 30

(B) 35

(C) 40

(D) 45

8. The number of integers from 1 to 100 that are divisible by 2 or by 5 is:

(A) 50

(B) 60

(C) 55

(D) 65

9. The number of integers from 1 to 60 that are coprime to 60 is:

(A) 16

(B) 12

(C) 14

(D) 18

10. The number of integers from 1 to 100 that are coprime to 30 is:

(A) 24

(B) 26

(C) 28

(D) 30

11. The number of integers from 1 to 49 that are coprime to 100 is:

(A) 20

(B) 18

(C) 22

(D) 24

12. The number of integers from 51 to 100 that are coprime to 100 is:

(A) 18

(B) 22

(C) 20

(D) 24



ANSWER KEY

PASSAGE 1 — TARGET RANGES (GEOMETRIC PROBABILITY)

Q1: (B) 1/2 — The midpoint square has side $2\sqrt{2}$ and area 8, which is half of the board's area 16.

Q2: (A) 1/4 — Triangle A(0,0), C(4,4), M(4,2) has area 4, and 4/16 = 1/4.

Q3: (C) $\pi/4$ — The inscribed circle has radius 2 and area 4π, so $4\pi/16 = \pi/4$.

Q4: (B) 3/4 — The inner square from 1 to 3 on each side has area 4, so the region within distance 1 of the boundary has area $16 - 4 = 12$, and $12/16 = 3/4$.

Q5: (B) 1/4 — The points closer to A than to B and D form the square $x < 2$, $y < 2$, of area 4, so $4/16 = 1/4$.

Q6: (B) 1/8 — The region $x + y \leq 2$ is a triangle of area 2, and $2/16 = 1/8$.

PASSAGE 2 — COPRIME VAULT (COPRIME COUNTS)

Q7: (C) 40 — Integers coprime to 100 in 1 to 100 are those not divisible by 2 or 5, and there are 40 of them.

Q8: (B) 60 — $50 + 20 - 10 = 60$.

Q9: (A) 16 — Integers coprime to 60 in 1 to 60 number 16.

Q10: (B) 26 — Integers coprime to 30 in 1 to 100 number 26.

Q11: (A) 20 — Integers from 1 to 49 coprime to 100 number 20.

Q12: (C) 20 — Integers from 51 to 100 coprime to 100 number 20, matching the count below 50.



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