

Logical Reasoning: Puzzles & Seating Arrangement

Elite Masterclass Cheat Sheet for Competitive Exams

1. Golden Rules of Inference

- **Definite Clues First:** Always start with absolute statements (e.g., “A sits at the extreme left”).
- **Negative Clues Second:** Use exclusions (e.g., “B is not adjacent to C”).
- **Case-by-Case Elimination:** Draw parallel possibilities and eliminate contradictions quickly.

2. Linear Seating Arrangement

- **Single Row Facing North:**
 - Left / Right correspond to your own Left / Right.
 - “Immediate Left” means $n - 1$ position.
- **Double Row (Facing Each Other):**
 - Row 1 faces South; Row 2 faces North.
 - Left/Right reverses for the row facing South!

3. Circular Seating Arrangement

- **Facing Center:**
 - Right = Anti-Clockwise (Counter-Clockwise)
 - Left = Clockwise
- **Facing Outside:**
 - Right = Clockwise
 - Left = Anti-Clockwise
- **Diametrically Opposite:** For N people evenly spaced, person i is opposite to $i + \frac{N}{2}$ (if N is even).

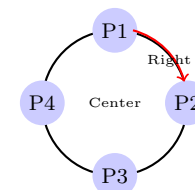
4. Floor & Box Puzzles

- **Floor Numbering:** Ground floor is usually 1, top is N .
- **Relative Positions:** “A lives immediately above B” means $A = B + 1$.
- **Gaps:** “Two persons live between X and Y” means $|X - Y| = 3$.

5. Scheduling & Scheduling Puzzles

- Fix the base parameter (Days of week, Months, or Years) as the primary column.
- Map secondary parameters (Profession, Color, City) conditionally.

6. Quick Visual Reference



7. Advanced Tips & Tricks

1. **Conditional Mapping:** Use shorthand notation like $A > B$ (A is taller than B) or $A \rightarrow C$ (A likes Coffee).
2. **Possibility Trees:** Keep track of branches. If a branch violates a negative constraint, prune immediately.
3. **Time Management:** Do not spend more than 3-4 minutes on a single complex puzzle in preliminary exams.

8. Common Terminology Decoder

Phrase	Mathematical Meaning
“A sits second to the right of B”	$B \rightarrow [\text{Gap}] \rightarrow A$ (Facing Center)
“Neither A nor B”	$\neq A$ and $\neq B$
“Immediate neighbor”	Adjacent on either side
“Who / Which”	Refers to the <i>immediate preceding</i> subject
“And / But”	Refers to the <i>subject of sentence</i> (first person)