

Reasoning Methods

Reasoning rewards pattern recognition. Use fixed methods.

Number series

Check in this order:

1. Difference
2. Difference of difference
3. Multiplication/division
4. Squares/cubes
5. Alternating pattern
6. Prime/fibonacci pattern

Example:

2, 6, 12, 20, 30, ?

Differences:

4, 6, 8, 10

Next difference = 12, answer = 42.

Letter series

Convert letters to positions:

A=1, B=2, C=3, ..., Z=26

Check:

- forward shift,
- backward shift,
- alternating shift,
- reverse alphabet pair: A-Z, B-Y.

Coding-decoding

Common rules:

- Shift letters: A → C means +2
- Reverse alphabet: A ↔ Z, B ↔ Y

- Position values: CAT = 3,1,20
- Mixed letter-number coding
- Word reversal

Method:

1. Compare known word and code.
2. Identify operation.
3. Apply exactly.

Blood relations

Never solve in text. Draw.

Symbols:

M = male
 F = female
 ↑ parent
 ↓ child
 – spouse/sibling depending context

Common relation codes:

- mother's brother = maternal uncle
- father's sister = paternal aunt
- wife's mother = mother-in-law
- husband's father = father-in-law

Direction sense

Draw arrows.

Use coordinate method:

- North = +y
- South = -y
- East = +x
- West = -x

Distance from origin:

$$\sqrt{x^2 + y^2}$$

if diagonal is required.

Syllogism

Use Venn diagrams.

Important:

- “All A are B” does not mean all B are A.
- “Some A are B” means at least one overlap.
- “No A is B” means no overlap.
- Conclusions must definitely follow, not possibly follow.

Statement and conclusion

Answer only what follows logically.

Do not use:

- personal belief,
- outside knowledge,
- emotional assumptions.

Data sufficiency

You do not need to find the answer. You need to decide whether the data is enough.

Check:

- statement I alone,
- statement II alone,
- both together,
- neither.

Visual reasoning

Check:

- rotation,
- mirror image,
- number of sides,
- number of dots/lines,
- shading position,
- clockwise movement,
- alternating shapes.

Logical puzzles

Method:

1. Draw table.
2. Put fixed information first.
3. Use negative information carefully.
4. Do not infer unless forced.