PAT Strategy & Visual Reasoning

INTRO

The Perceptual Ability Test (PAT) is not about talent or intuition.
It is about **seeing the right reference**, **ignoring distractions**, and **making fast eliminations** under time pressure.

This bonus is **not a test**.
It is a **visual reasoning guide** designed to teach you *how to think* when facing PAT questions.

Inside this guide, you will not find long explanations or theory.
Instead, you will learn a **repeatable decision process** that works across all PAT subtests.

What This Bonus Does

- Shows you **where to look first**
- Teaches you **what to ignore**
- Explains **why wrong answers look tempting**
- Trains you to **eliminate options fast and confidently**

Every example is visually annotated using:

- anchors (reference points)
- arrows (movement or rotation)
- minimal labels
- clear elimination marks

The goal is simple:
one correct decision, in seconds, without guessing.

What This Bonus Is NOT

- ❌ It is not a full-length PAT test
- ❌ It is not a question bank
- ❌ It is not meant to replace timed practice

This guide exists to **upgrade how you think**, so that practice and full tests become more effective.

What's Inside

This guide covers **all 6 DAT PAT subtests**:

- Angle Ranking
- Cube Counting
- Hole Punching
- Pattern Folding
- Keyholes
- Top–Front–End (TFE)

Each section follows the same structure:

1. How to think (core logic)
2. Guided visual examples
3. A fast decision checklist

How to Use This Bonus

- Use it **before** PAT practice to learn the logic
- Review it **after** practice to understand mistakes
- Revisit the checklists during the last weeks before the DAT

If you follow the process shown here, PAT questions stop feeling random — and start feeling mechanical.

Part 1 — Keyholes

- How to Think
- Guided Example 1
- Guided Example 2
- 10-Second Checklist

Part 2 — Top–Front–End (TFE)

- How to Think
- Guided Example 1
- Guided Example 2
- 10-Second Checklist

Part 3 — Angle Ranking

- How to Think
- Guided Example 1
- Guided Example 2
- 10-Second Checklist

Part 4 — Hole Punching

- How to Think
- Guided Example 1
- Guided Example 2
- 10-Second Checklist

Part 5 — Cube Counting

- How to Think
- Guided Example 1
- Guided Example 2
- 10-Second Checklist

Part 6 — Pattern Folding

- How to Think
- Guided Example 1
- Guided Example 2
- 10-Second Checklist

KEYHOLES

How to Think

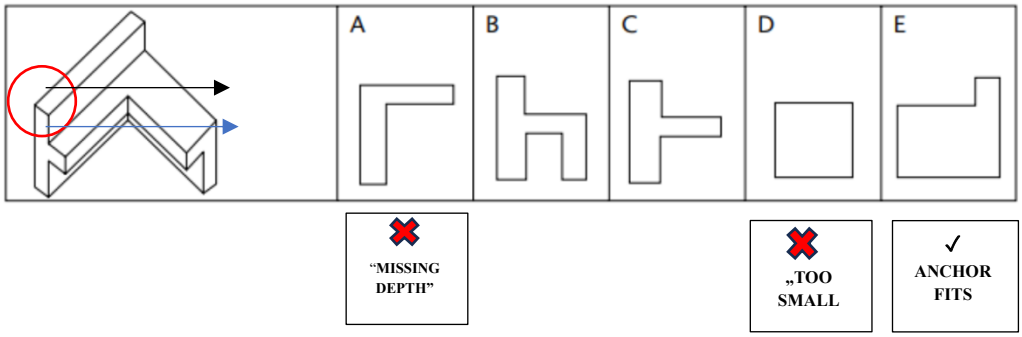
Keyholes questions are about **fit**, not rotation tricks.
Your goal is to find the **only opening** the object can pass through **without bending or twisting**.

Follow this process:

1. Identify the **most extreme feature** of the object.
2. Mentally project that feature straight through the opening.
3. Eliminate any option that is **too small**, even if the shape looks similar.
4. Watch for **extra bumps or missing cutouts** — eliminate immediately.
5. Ignore surface details that do not affect the **outer contour**.

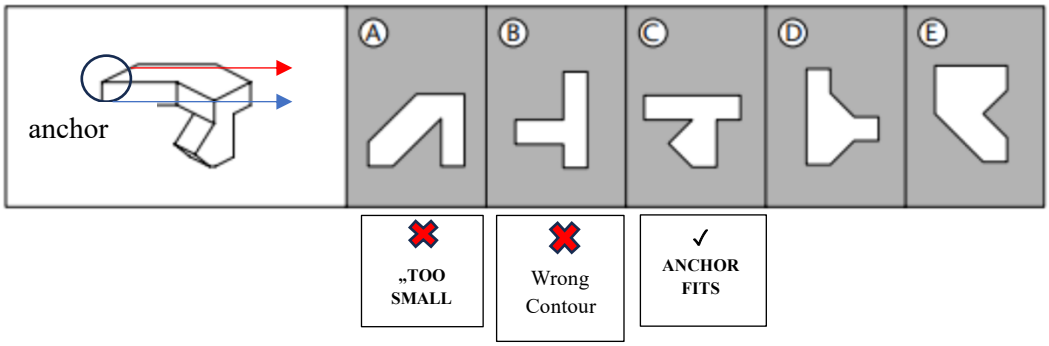
If one detail cannot pass, the object cannot pass.

Example:



Practice

1.



Top–Front–End (TFE)

How to Think

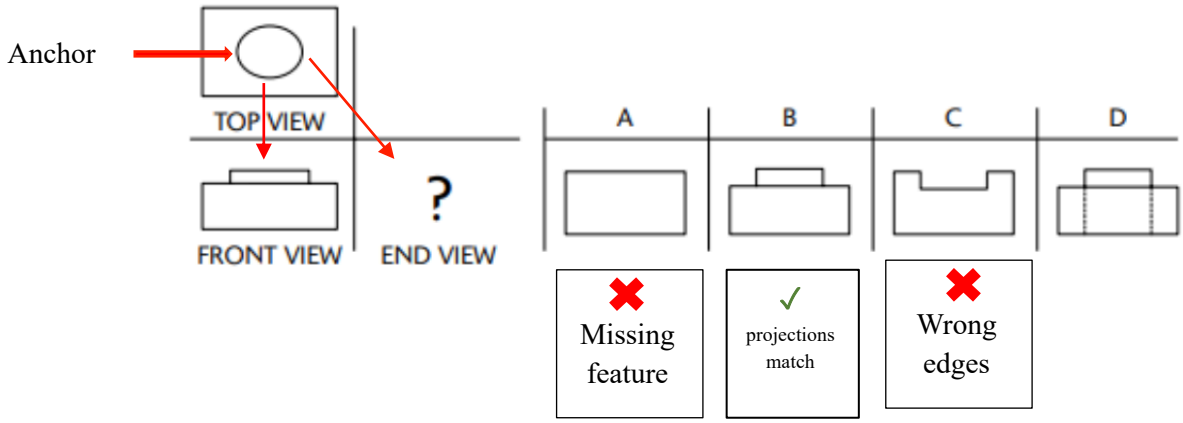
TFE questions test **consistency between views**, not imagination.
Your goal is to find the **only view** that matches the given projections **without contradiction**.

Follow this process:

1. Choose the view with the **most information** as your reference.
2. Match **edges and lengths** across the other views.
3. Check that every visible edge appears in **all compatible views**.
4. Use **dotted lines** to confirm hidden features.
5. Eliminate any option that adds or removes an edge.

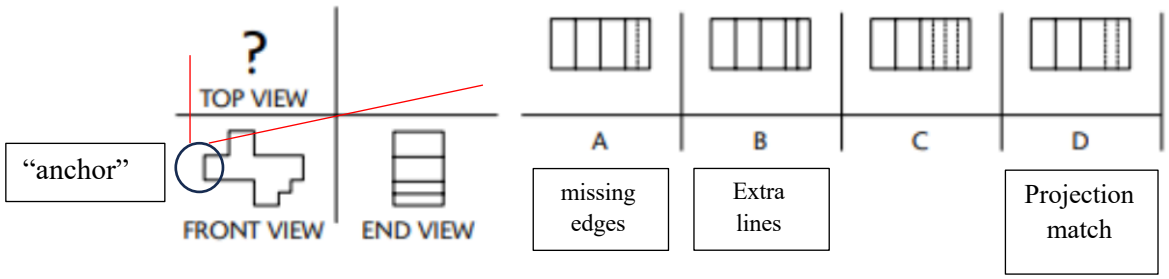
If one edge disagrees, the entire option is wrong.

Example:



Practice

16. Choose the correct TOP VIEW.



10-Second Checklist — TFE

- Choose the view with the **most information** as the anchor.
- Project that feature into the missing view.
- Match **edges, lengths, and spacing** across views.
- Any extra or missing edge → eliminate the option.

Angle Ranking

HOW TO THINK

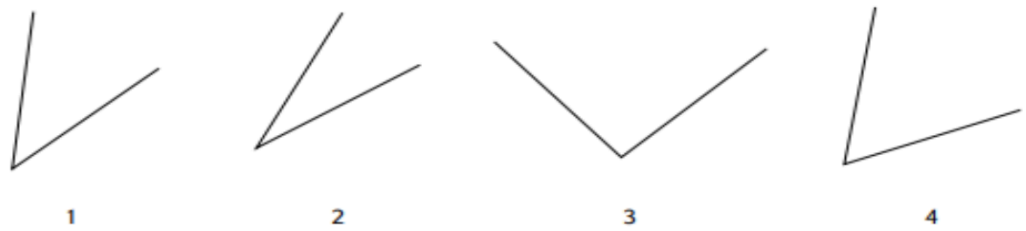
Angle Ranking questions test **relative openness**, not line length.
Your goal is to compare the **interior angles** from **smallest to largest**.

Follow this process:

1. Ignore line length — it is a visual trap.
2. Focus only on the **opening between the two lines**.
3. Compare angles **pairwise**, not all at once.
4. Use an imaginary reference (almost closed → almost flat).
5. Re-check the closest two before finalizing the order.

If two angles look close, one is always **clearly smaller**.

Example:

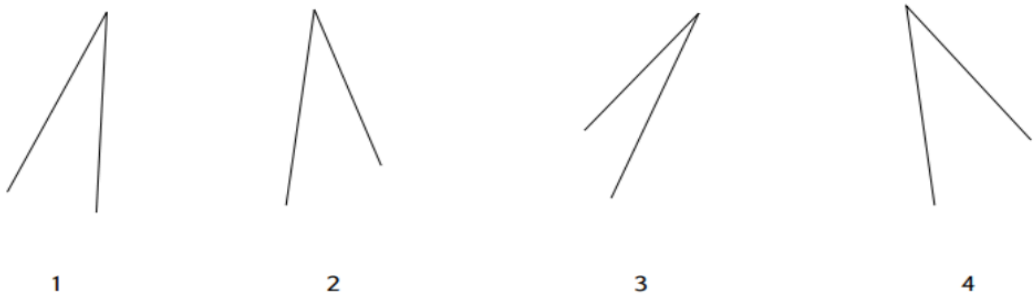


A. 1 – 2 – 3 – 4
B. 2 – 1 – 4 – 3
C. 1 – 3 – 2 – 4
D. 3 – 4 – 1 – 2

The correct ranking of the angles from small to large is 2 – 1 – 4 – 3; therefore, B is correct.

Practice

31.



A. 3 – 1 – 2 – 4
B. 3 – 1 – 4 – 2 **✓ correct order**
C. 1 – 3 – 2 – 4
D. 1 – 2 – 3 – 4

10-Second Checklist — Angle Ranking

- Ignore line length completely.
- Identify smallest and largest first.
- Order from most closed to most open.
- Compare the remaining two direct

Hole Punching

How to Think

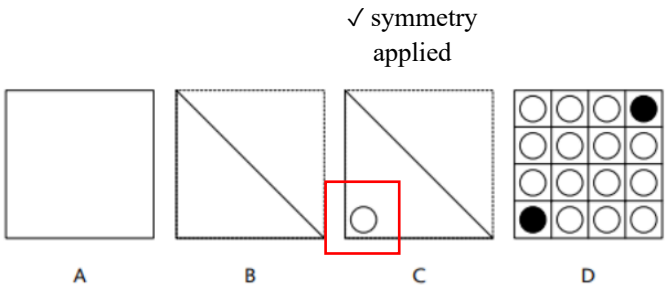
Hole Punching questions test **symmetry and reflection**, not memory.
Your goal is to track **where the paper folds**, then mirror the hole across each fold.

Follow this process:

1. Always start from the **last fold made**.
2. Reflect the hole across that fold line.
3. Repeat the reflection for each previous fold.
4. Count holes: each fold **doubles** the number.
5. Use symmetry to check your final pattern.

If the hole placement is wrong after one fold, everything after will be wrong.

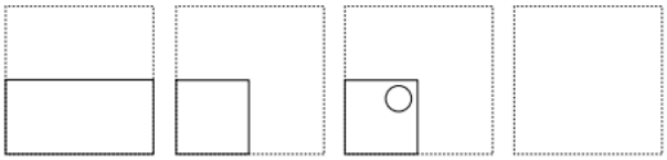
Example 1:

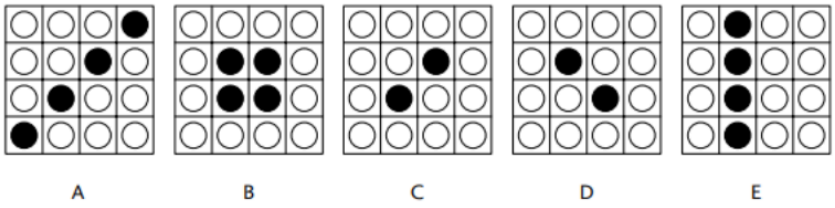


In Example 1, Figure A represents the original paper, unfolded. The second choice, B, represents the first fold. The third illustration shows where the hole is punched. After the paper is unfolded, there will be two holes represented by the dark circles in the last illustration (D).

The following example shows how this type of question will appear on the test.

Example 2:

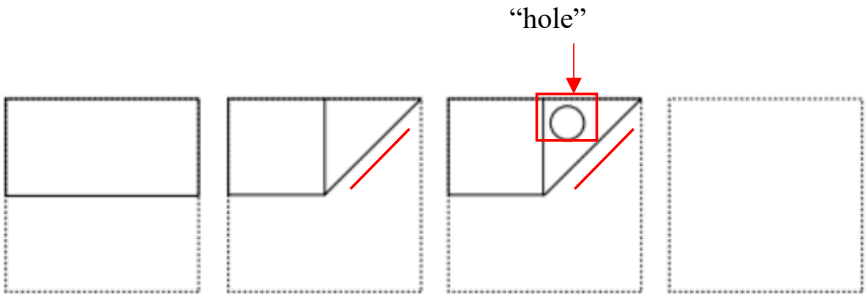


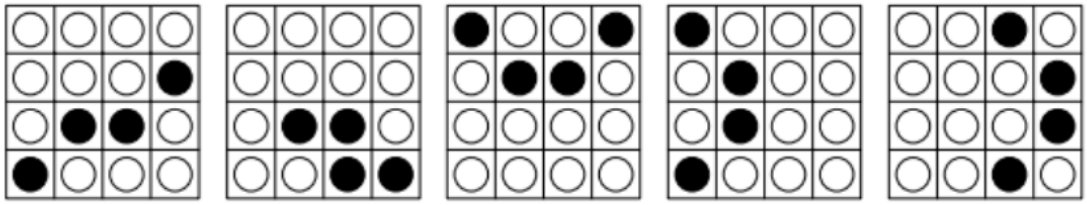


The correct answer to this example is B. With one fold, you would have two holes punched. With two folds, you will have four holes punched.

Practice

46.





A B C D E

✓ correct pattern

10-Second Checklist

- Start from the **last fold shown**.
- **Mirror the hole** across each fold line, one at a time.
- Each fold **doubles** the number of holes.
- Check **symmetry** before choosing.

Cube Counting

How to Think

Cube Counting questions test exposure, not visualization tricks.
Every cube is painted **after** assembly, on all exposed sides except the bottom.
Hidden cubes still count — if they touch another cube, that face is **not painted**.
Your job is to count **faces**, not cubes.
Always classify cubes by how many sides are exposed (1–5), then count.

Each figure has been made by attaching cubes of an identical size. After being attached, each group was painted on all sides. Only the bottom sides on which each cube rests were not painted. Hidden cubes are those that support other cubes.

For Questions you are asked to answer the following questions based on the related figure:

- How many cubes have only one of their sides painted?
- How many cubes have only two of their sides painted?
- How many cubes have only three of their sides painted?
- How many cubes have only four of their sides painted?
- How many cubes have all five of there sides painted?

There will be no problems for which zero (0) is the correct answer.

In the following figures, how many cubes have two of their exposed sides painted?

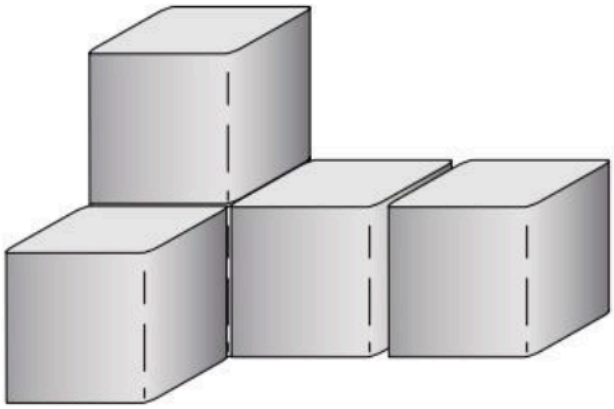


Figure 1

A. 1 cube
B. 2 cubes
C. 3 cubes
D. 4 cubes
E. 5 cubes

There are five cubes in Figure 1. Four cubes are visible and one is hidden, which supports the cube on the top row. The hidden cube has only two sides painted. The top cube has five sides painted. The front cube and the cube on the right each have four sides painted, and the middle cube has three sides painted. The correct answer is A.

Remember that after the cubes have been attached, each figure was painted on all exposed sides, except the bottom.

Practice

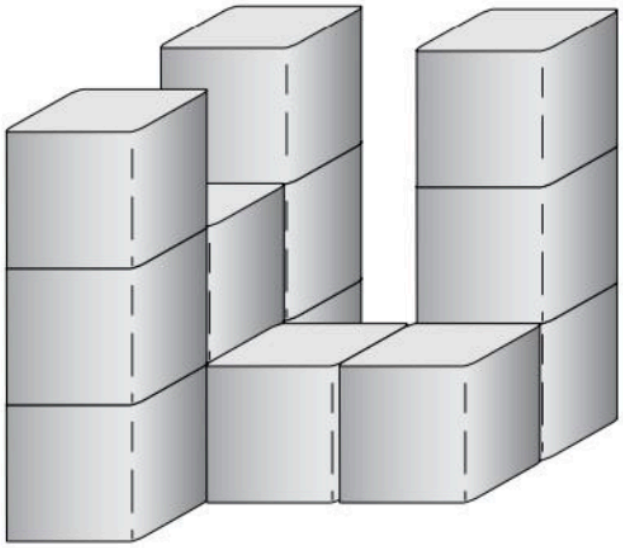


Figure E

73. In Figure E, how many cubes have one of their exposed sides painted?

A. 1 cube
B. 2 cubes
C. 3 cubes
D. 4 cubes
E. 5 cubes

74. In Figure E, how many cubes have four of their exposed sides painted?

A. 1 cube
B. 2 cubes
C. 3 cubes
D. 4 cubes
E. 5 cubes

75. In Figure E, how many cubes have five of their exposed sides painted?

A. 1 cube
B. 2 cubes
C. 3 cubes
D. 4 cubes
E. 5 cubes

Answers: 73. A 74. A 75. C

10-Second Checklist

• Count **faces**, not cubes.
• Bottom faces are **never painted**.
• Touching faces = **not painted**.
• Hidden cubes still count.
• Group cubes by **number of exposed sides**, then count.

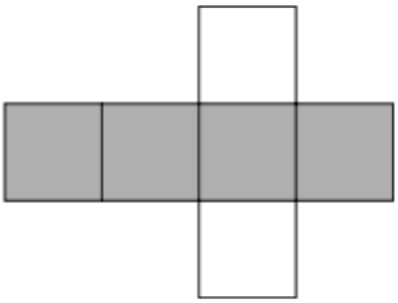
Pattern Folding

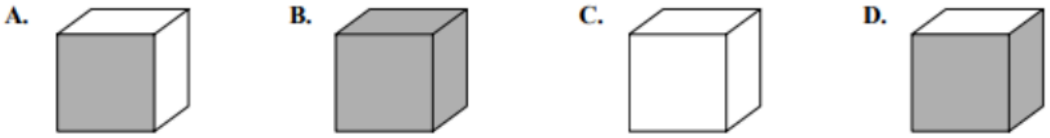
How to Think

Pattern Folding tests surface mapping, not imagination tricks.
The shaded faces in the net must match the shaded faces on the folded solid.
Edges must connect exactly — no stretching, flipping, or rotating after folding.
If one face is wrong, the entire option is wrong.

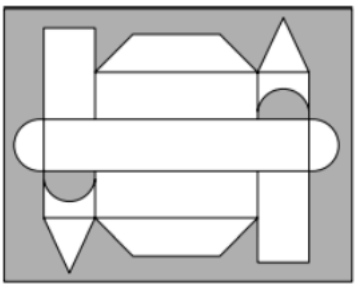
In this section, a flat pattern is presented. Based on your perception of this pattern, you must visualize what it will look like when it is folded into a three-dimensional figure. You are given four choices, but only one will be the correct answer. There is only one correct figure in each set. The outside of the pattern is what is seen in the center.

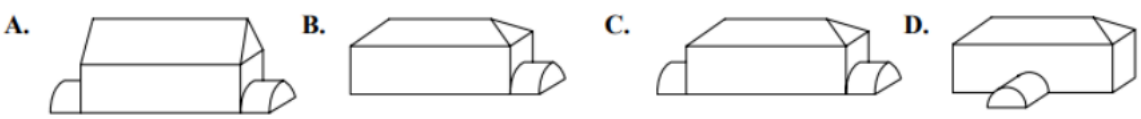
Example:





One of the preceding figures (A, B, C, or D) can be formed from the flat pattern in the center. The only figure that corresponds to the pattern is D. If the shaded surfaces are looked at as the sides of the box, then all four sides must be shaded, while the top and the bottom are white.





10-Second Checklist — Pattern Folding

- Start from the **center face** and fold outward, one face at a time.
- Track **shaded faces** first — their relative positions must stay consistent.
- Check **adjacent faces**: any option that flips or swaps neighbors is wrong.
- Ignore perspective tricks: only **face placement**, not size or angle, matters.