Build, Develop, Learn

◆ 1. Read Slowly. Don't Assume.

- Read the question 2–3 times.
- Say it out loud like you're explaining it to a kid.
- If your brain *assumes* the question, it'll take the wrong path.

◆ 2. Understand Input → Output

- What does the input look like?
- What exactly should the output be?
- Try 1–2 sample cases *yourself*, on paper.

◆ 3. Ask: What is Being Asked?

Is it:

- Max/Min?
- Count?
- Index/Position?
- Sort/Rearrange?
- Remove/Add elements?

This defines your approach — don't code until this is clear.

◆ 4. Use Real Examples

- Pick a small input.
- Dry-run it **step by step** on paper.
- Watch how values change → that's your logic revealing itself.

◆ 5. Spot the Pattern

Ask yourself:

- Am I comparing current vs previous?
- Am I skipping duplicates?
- Am I checking conditions while looping?
- Am I tracking index or value?

◆ 6. Decide What to Track

Think:

- Do I need a pointer?
- Do I need to count something?
- Do I need to store something temporarily?

Assign names in your head: `left`, `right`, `minSoFar`, etc.

◆ 7. Break the Problem into Phases

Many problems need 2 phases:

- Phase 1: Move / Compare / Filter
- Phase 2: Clean-up / Return / Fill rest

◆ 8. Avoid Brute Force (if array is large)

- O(n²) will fail in big tests.
- Use smart loops or two pointers instead.

◆ 9. Rebuild Your Logic in English

Before code, say out loud: "First I'll check if… then I'll update… then I'll loop…"

If you can explain it, you can code it.

◆ 10. Get Stuck? Don't Panic. Restart.

- Go back to step 3.
- Try smaller input.
- Write what your mind is thinking — even if it's messy.

💬 Optional Daily Practice Mantra:

"I don't need to know everything. I just need to figure out the next small step. That's how logic is built."

🔑 So Remember:

Your mind builds logic.

Not code. Not syntax.

And logic follows patterns, no matter what DSA topic you're in.

Problem Solving Framework ("GPT-like Thinking")

1. Understand the Input/Output clearly (dry run on 2 examples)

2. Ask: Can I brute force this? (2 loops, nested?)

3. Ask: Can I use memory? (HashSet, HashMap?)

4. Ask: Can I sort first?

5. Ask: Can I do it in-place?

6. Ask: What's repeating? Can I use math/formula/sliding window/slow-fast pointer/ or any pattern you noticed?