

MATHEMATICS · CHAPTER 2

Relations and Functions

A 1-page guide for parents · 90-second read.

EXPECTED MARKS**6 marks****TIME TO MASTER****8-10 hrs****HELPLINE****70330 05444****WHAT THIS CHAPTER IS, IN PLAIN ENGLISH**

This chapter teaches your child the language of input-output. Whenever you say 'every PIN code maps to one city', or 'every student maps to one roll number', you're describing a **FUNCTION** — a special kind of pairing. The chapter starts with ordered pairs (1, 2) being different from (2, 1), builds up to **RELATIONS** (any pairing) and then narrows down to **FUNCTIONS** (pairings where each input has exactly one output). It also introduces graphs of basic functions like $|x|$ (absolute value, V-shape) and $[x]$ (greatest integer, staircase). Although the chapter feels abstract, it is **THE** foundation for everything in Class 12 calculus and competitive exams (JEE, CUET).

5 QUESTIONS TO ASK YOUR CHILD

- Give me a real-world example of an ordered pair and tell me why order matters.
- If A has 4 elements and B has 3 elements, how many elements does $A \times B$ have?
- What is the difference between a relation and a function?
- Can a function send two different inputs to the same output? (Yes — it's called many-one. The chapter explains it.)
- Sketch the graph of $|x|$ on the back of an envelope and tell me its domain and range.

WEAK-SPOT INDICATORS

- Writes (a, b) and (b, a) as the same thing — has not internalised order.
- Computes $|A \times B|$ as $|A| + |B|$ instead of $|A| \cdot |B|$.
- Cannot distinguish **RANGE** (what is actually hit) from **CODOMAIN** (what was declared).
- Says $(f \circ g)(x)$ and $(g \circ f)(x)$ are the same.
- Cannot recall the four standard graphs (identity, $|x|$, signum, $[x]$) without notes.

WHEN TO WORRY — AND WHAT TO DO

If, after 6 hours of practice, your child still cannot list $A \times B$ for two small sets without missing pairs, or cannot find the domain of $f(x) = 1/(x-2)$, call our helpline. These are 2-mark and 3-mark questions that should be near-automatic by month-end.

+91 70330 05444 · readyforboards.com · Boards prep that builds confidence, not anxiety.