FREE PREVIEW | DIGITAL-ONLY PRODUCT

Class 8 Maths Mastery

Find the gap. Repair only what broke. Then check whether it transfers.

A Ganita Prakash companion built around diagnosis, correction and changed-question transfer - not another worksheet bank.

WHAT THIS PREVIEW SHOWS

A route-first workflow, one Master Diagnostic pair, a real chapter route from Fractions in Disguise, one changed-context transfer task, and the tracking/support tools.

Rs 199 Founding launch price | one-time digital purchase

FULL PRODUCT

All 14 chapter families + Master Diagnostic + Mixed Transfer Lab + Progress Map + Reasoning Guide + Parent/Teacher Guide, in phone/A4/fillable formats.

Preview only. Independent learning companion; not affiliated with NCERT, CBSE or any school.

Six steps - and four sensible entry points

1 ATTEMPT

Master Diagnostic pair or known chapter diagnostic.

2 CHECK

Separate key after attempt; route by error pattern.

3 REPAIR

Smallest route; prerequisite first if it blocks later work.

4 RETRY

Changed question - not the identical example.

5 TRANSFER

Use the chapter task in Mixed Transfer Lab.

6 RECORD

Update Progress Map and next action.

Where to start

- **Unknown gap:** Master Diagnostic
- **Known chapter:** That chapter companion
- **Exact observed error:** Matching route + changed retry
- **Repeated old gap:** Progress Map dependency chain

08 | FRACTIONS IN DISGUISE

Two linked checks

percent of what? -> successive bases -> transfer



CHECK A

A price rises from Rs 800 to Rs 920. What is the percentage increase? Name the base you used.

Working / reasoning

CHECK B

An item marked Rs 1000 gets a 20% discount, then 10% tax on the discounted price. Find the final price and explain why the two percentages cannot simply be netted.

Working / reasoning

AFTER USING THE SEPARATE ROUTE KEY

Starting route / note: _____

FREE PREVIEW

FRACTIONS IN DISGUISE

Fractions in Disguise

Diagnostic, Correction & Transfer Companion

START HERE

Do the linked route check first. Use the route that matches the repeated error. Stop after the learner can name the base, explain the relationship and transfer it.

R1	Convert form
R2	Find base
R3	Points/change
R4	Commercial
R5	Reverse/repeat
R6	Compounding
R7	Unpack words

Independent Dishantra learning companion. Not affiliated with NCERT, CBSE or any school. No marks guarantee.

Linked diagnostic checks

Use pairs to locate the smallest useful route. Do not calculate a percentage score.

D1	Write 3/5 as a decimal and a percentage.	
D2	Write 62.5% as a fraction in simplest form.	
D3	30 is what percent of 120?	
D4	Find 35% of 240.	
D5	A rate rises from 40% to 50%. What is the percentage-point increase?	
D6	For 40% to 50%, what is the relative percent increase from the old rate?	
D7	An item marked Rs600 has 20% discount. Find the price paid.	
D8	Cost Rs400, selling Rs500. Find profit percent on cost.	
D9	After a 20% increase, a value is 720. Find the original value.	
D10	Rs1000 is reduced by 10% and then by another 10%. Find the final value.	
D11	Rs2000 grows by 10% for 2 years with annual compounding. Find the amount.	
D12	A Rs5000 value depreciates by 20% in one year. Find the new value.	
D13	If A is 125% of B, write A in terms of B.	
D14	A quantity falls by 70%. What percentage of the original remains?	

Routing: D1-D2 R1 | D3-D4 R2 | D5-D6 R3 | D7-D8 R4 | D9-D10 R5 | D11-D12 R6 | D13-D14 R7

R1 | CONVERT THE FORM

Move between fraction. decimal and percent

THE IDEA

A percentage is a fraction with denominator 100. Fractions, decimals and percentages can name the same part of a whole.

METHOD

Use fraction -> decimal by division, decimal -> percent by x100, and percent -> fraction by writing over 100 then simplifying.

WORKED MODEL

3/8 = 0.375 = 37.5%.

YOUR TURN

Write 7/20 as a decimal and a percentage.

R2 | PERCENT OF WHAT?

Name the base before you calculate

THE IDEA

A percentage always compares a part with a chosen base. The same part can give a different percentage if the base changes.

METHOD

Write PART / BASE x 100. For r% of a quantity, use (r/100) x base. Circle or name the base before substituting numbers.

WORKED MODEL

45 is 30% of 150 because 45/150 x 100 = 30%.

YOUR TURN

Find 18% of 250.

07 | PROPORTIONAL REASONING-1

Changed-context task

On a map, 4.5 cm represents 18 km. At the same scale, what distance does 7.5 cm represent? Show a scale factor or unit rate and state why the relationship is proportional.

WORKING / REASONING

Show one useful step + one sentence explaining why the method still works.

08 | FRACTIONS IN DISGUISE

Changed-context task

A Rs 2400 item has two offers. Store A gives 25% off. Store B gives 10% off and then another 20% off the reduced price. Which store is cheaper? Find the effective percentage discount for Store B.

WORKING / REASONING

Show one useful step + one sentence explaining why the method still works.

07 | PROPORTIONAL REASONING-1

Route range R1-R6 Scale factor -> constant ratio -> changed context

Current status

Starting route / why

Changed retry evidence

Transfer lab status

Next action

08 | FRACTIONS IN DISGUISE

Route range R1-R7 Base -> successive percentage -> transfer

Current status

Starting route / why

Changed retry evidence

Transfer lab status

Next action

Reasoning Quick Reference

Use the shortest explanation that makes your mathematical thinking visible.

1. EXPLAIN Name the relationship and why it fits.

I know ___ because ___.

2. JUSTIFY Show why the claim must hold.

This is always / sometimes / never true because ___.

3. COMPARE Choose the deciding criterion or a common form.

Both have ___. They differ in ___.

4. ESTIMATE Predict the size and check reasonableness.

My answer should be about ___ because ___.

5. SHOW A STEP Write the step that reveals the method.

I used ___ rather than ___ because ___.

BEFORE YOU STOP

Answer the question -> make the idea visible -> check base/unit/property -> check reasonableness -> ask whether you could handle a changed version.

Help without giving the answer

1. ASK FOR THE FIRST NOTICING

What do you notice? What is given? What is the question asking?

2. ASK FOR A REPRESENTATION

Can you draw it, mark the units, write a ratio/table/expression, or name the relevant property?

3. ASK FOR ONE USEFUL STEP

What is one step you are sure about? Which number/property/base does that step use?

4. OFFER A CHOICE, NOT AN ANSWER

Would a factor structure or a square table help? Is this direct or inverse? Is that side a perpendicular height or just a slanted side?

5. POINT TO THE SMALLEST ROUTE

If the same error repeats, open only the matching chapter route. After repair, retry a changed question.

STOP RULES

Stop after a correct first step. Stop when the error pattern is visible. After repair, retry a changed question. Do not total a percentage.

FREE PREVIEW

WHAT THE FULL PRODUCT ADDS

Do less. Diagnose better.

The preview shows only a small slice. The full system covers all 14 Class 8 chapter families and keeps the same route-first logic throughout.

- Master Diagnostic: 28 linked checks across all 14 chapter families.
- 14 chapter companions: identify the repeated error and open only the smallest useful route.
- Mixed Transfer Lab: new contexts that check whether the idea truly transfers.
- Progress Map: track route, retry evidence, transfer status and next action - no fake mastery percentage.
- Reasoning Guide + Parent/Teacher Guide: explain better and help without giving away the answer.
- Phone reading + A4 print + editable fillable versions.

FOUNDING LAUNCH PRICE: Rs 199

One-time digital purchase. Built for a learner who needs the right repair route - not more pages to complete.