

Unit-rate rehearsal facilitator guide

Lead the rehearsal and keep evidence honest

All work samples, probe replies and return-conversation records in this pack are original fictional examples. They illustrate possible decisions; they do not report classroom validation, learner diagnoses or measured effectiveness.

Read the mathematics page in the rehearsal before facilitating. Use the initial prompt to orient the adults, not as a pretest of their teaching skill. Read the worked case, attempt the guided and independent cases, then compare the answers below. Reserve the separate fresh and later learner sheets.

Look for these features in adult responses

- Accurate task mathematics and units; an observation separated from a possible explanation.
- More than one plausible explanation when evidence is incomplete; a probe that elicits meaning without supplying the answer.
- Different learner-facing teaching when the replies differ; a complete selected prompt and the conditions under which it will be used.
- A changed-data check matched to the target, with support and exposure recorded.
- A qualified claim and a teacher-chosen next action. Accept accurate paraphrases and defensible alternatives that meet these features.

Mentoring time, roles and available support vary. Agree local note use and evaluation boundaries; use minimal anonymous evidence. The teacher chooses the focus and may continue, change or pause. This is a rehearsal, not an employee assessment rubric.

Classroom copying and adaptation of original teaching text follow Mentor Teaching's Terms of Use: <https://mentorteaching.com/terms-of-use/> . Keep learner prompts separate from this guide and adult worked examples. Adaptable HTML is supplied; existing mentoring Word forms remain available in the wider kit.

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Guided case answers: questions 1-3

1. Observe the response

The number 0.75 is correct for the requested share. The learner has not supplied a unit, drawing or explanation, equation or total check. These omissions leave the meaning and requested reasoning unobserved. Do not call an unlabelled correct number proof of conceptual understanding, guessing or confusion.

2. Hold alternative explanations

Possibility: the learner understands $\frac{3}{4}$ litre per container but omitted the explanation. Alternative: the learner applied the division order from the printed numbers without tracking the quantities. Other explanations, such as copying a remembered calculation, remain possible; the record rules out help on this attempt only as far as the supplied conditions state.

3. Elicit meaning without giving it

Example probe: "What does 0.75 describe here? Show how your amount relates to one container and to all the water." It does not say that 0.75 is litres per container or give the division order. Accept other neutral requests to label or represent the learner's own answer. A question that supplies the correct unit, equation or model is teaching, not an unprompted demonstration.

What a blank or unexpected reply means

A blank explanation alone does not establish a cause. Offer a neutral choice of spoken explanation or drawing if writing is not the target, and record the mode and prompt. If the reply is unexpected, inspect it before selecting one of the two illustrated moves; the fictional branches are examples, not exhaustive categories.

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Guided case answer: question 4

B1: the number without quantity meaning

The reply supports an immediate need to connect a numerical result to equal sharing. Use this learner-facing move: "The whole bar is 6 litres. Divide it into 8 equal parts for the 8 containers. One share is $\frac{6}{8}$ litre, or $\frac{3}{4}$ litre. Point to that share and explain how 8 copies return the total."

Then use the practice page, 8 litres among 10 containers, asking the learner to mark the total and equal shares, label one share, and reconstruct 8 litres. Its answer is $\frac{8}{10} = \frac{4}{5} = 0.8$ litre per container; 10×0.8 litre = 8 litres. Record the model, prompts and any diagram support. If the learner can explain those quantities after practice, reserve a new opportunity for the fresh check. If not, continue teaching the equal-share meaning rather than calling repeated supported calculation independent evidence.

B2: meaning present but not written

The reply supplies the missing unit and reconstruction on the original task. Use this learner-facing move: "Write the unit and show your reasoning so another reader can follow it. Now solve the fresh-check problem on your own with a labelled amount and an explanation." Use 5 litres among 8 containers when the learner has not seen its answer.

Record the original probe and the fresh-check conditions. A complete labelled fresh response supports this narrow target; an unlabelled number calls for clarification of what the amount means and a further check. A reversed rate calls for a quantity-label probe and teaching fitted to its reply. A technically sound alternative move is acceptable if it addresses the observed evidence and reserves a check.

Do not make "continue," "clarify" and "teach sharing" permanent learner labels. They describe an immediate response to evidence.

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Independent case answers: questions 1-4

1. Written mathematics and its limits

C correctly gives $\frac{3}{4}$ litre per container and reconstructs 6 litres. Partner explanation and the same worked solution preceded it. The record supports a correct supported response, not independent understanding or a causal claim about the partner or teacher.

2. Two possibilities and a way to check

The learner may now understand the sharing, or may reproduce a supplied explanation without being able to use it on new quantities. A neutral probe could ask: "Explain what each quantity in your equation stands for." A matched new individual task provides stronger evidence of using the idea than repeating the same answer; neither establishes broad durable mastery.

3. A complete next action

Use the fresh-check page when it is unseen: "Work on this new problem by yourself. Give the amount and unit, explain equal sharing and check the total." Do not display a model answer or allow partner solution help during the check. Neutral direction reading or an oral/drawn response is possible; record exactly what happened. Look for $\frac{5}{8} = 0.625$ litre per container and 8 copies making 5 litres.

4. Contingent decisions

A labelled amount with equal-share explanation and total reconstruction supports proceeding to the later check after another relevant learning opportunity. A correct unlabelled number warrants a neutral meaning probe and clarification if meaning is present. A reversed rate warrants a quantity probe, then either rate-label clarification or sharing instruction according to the reply. If no interpretable response appears, check access to the directions and allow an appropriate response mode before inferring mathematics. Record the actual result; do not prefill it.

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Learner prompt keys and criteria

Each sheet asks for three connected products: (1) amount with unit, (2) drawing or explanation of equal sharing, and (3) equation with a reconstruction of the total. These are evidence criteria, not a numerical grading scale. Accept equivalent fractions, decimals and valid representations.

- Initial: $6/8 = 3/4 = 0.75$ litre per container. Represent the whole 6 litres divided into 8 equal shares.
Equation: 6 litres / 8 containers = 0.75 litre per container; check 8×0.75 litre = 6 litres.
- Practice: $8/10 = 4/5 = 0.8$ litre per container. Divide the whole 8 litres into 10 equal shares; check 10×0.8 litre = 8 litres.
- Fresh check: $5/8 = 0.625$ litre per container. Divide the whole 5 litres into 8 equal shares; check $8 \times 5/8$ litre = 5 litres.
- Later check: $7/10 = 0.7$ litre per container. Divide the whole 7 litres into 10 equal shares; check 10×0.7 litre = 7 litres.

An explanation may show a total bar or distribute each litre into equal fractional parts. It must identify the total and the number of equal shares. A diagram of 8 or 10 unlabelled boxes alone does not show the water amount. No drawing of a physical container capacity is required.

Read common response patterns

Correct amount without units or meaning: probe what it describes before assuming understanding or misunderstanding. Reverse division with a litres-per-container label: ask for quantity meaning, then clarify the requested rate or teach equal sharing as the reply warrants. A total reconstruction inconsistent with the amount: ask the learner to reconcile the two, then model the identified need. Correct work with answer help: record support and use a genuinely new matched check.

Use the later page after another learning opportunity. If its solution was shown, it is a practice response; choose and solve a new matched check. Record any calculator, partner, model, direction reading, response mode and prior exposure. No arithmetic-fluency claim follows from permitted calculator use.

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Return and local planning answers

Return conversation: questions 1-4

- 1. The fictional fresh response labels $\frac{5}{8}$ litre per container, explains eight equal shares and reconstructs 5 litres. On this task, under the stated conditions, it supports the target. It leaves broader rate contexts, lasting recall, the rest of the class and teaching causation unknown.
- 2. A defensible statement: “On a new equal-sharing task after teaching and practice, this learner explained $\frac{5}{8}$ litre per container and reconstructed the total, with only neutral direction reading recorded.” That sequence does not prove the teaching caused the result.
- 3. Agree to use the later-check page after another relevant learning opportunity, without displaying its solution. Record the timing relative to learning, prior exposure and help. If a later reply omits meaning or reverses units, probe and choose teaching from that evidence; do not assume failure or stability in advance.
- 4. Example mentor question: “Which one next step would help you check this target again, and what support and return time are feasible?” Agree a teacher-owned action; continuing, changing focus or pausing can be reasonable.

Local planning: questions 1-4

There is no single classroom answer. Require a locally relevant target with a solved task and criteria; a prompt and anonymous work sample with known conditions; alternative explanations, a neutral probe, conditional teaching and a complete new check; and an agreed return with a limited evidence claim. Changing subjects or mathematics needs new subject-specific solutions, not just substituted nouns. The blank record is a planning aid, not validated general-purpose assessment.

Professional context and reuse

The Institute of Education Sciences guide Using Student Achievement Data to Support Instructional Decision Making describes an ongoing data-to-instruction cycle. Its recommendations are labelled Minimal Evidence; it does not validate this rehearsal: <https://ies.ed.gov/ncee/wwc/practiceguide/12> . The task mathematics and teaching examples here are original, not quotations or adapted source media.

No classroom effectiveness has been established. Select support and follow school-use procedures in context.