

Matthie Recalculation Path

Proportional Reasoning (Book 3)
Trackers & Forms

Carlinton Matthie, M.Ed.

Built against Master Framework v1.1

Recalculation Record (Required)

This is the one required tracker. It records, per student, the status of every skill in the Proportional Reasoning skill map. Status codes: NY (Not Yet), R (Recalculating), M (Mastered), IE (Insufficient Evidence). Update after each confirmed pattern, not after a single item.

Student name: _____	Grade: _____ School year: _____
---------------------	---------------------------------

Skill ID	Skill	Status (NY/R/M/IE)	Date	Notes
PR-RR-01	Decide whether a relationship is proportional			
PR-RR-02	Find and apply a unit rate			
PR-RR-03	Justify a proportionality claim across representations			
PR-FR-01	Understand a fraction as parts of a specified whole			
PR-FR-02	Find a fraction of a quantity			
PR-FR-03	Compare fractions and justify using a common reference			
PR-FR-04	Multiply a fraction to scale a quantity			
PR-FR-05	Add and subtract fractions with unlike denominators			
PR-FR-06	Divide fractions and interpret what the quotient means			
PR-PC-01	Convert fluently among fraction, decimal, and percent forms			

Skill ID	Skill	Status (NY/R/M/IE)	Date	Notes
PR-PC-02	Recognize and justify that a value can exceed 100%			
PR-PC-03	Justify which form fits a given purpose			
PR-PC-04	Convert a percent using the hundredths meaning			
PR-PC-05	Estimate a percent using benchmarks			
PR-PC-06	Track the whole across a percent problem above 100%			
PR-PC-07	Identify which quantity is missing in a percent problem			
PR-PC-08	Choose the operation based on which quantity is missing			
PR-PC-09	Verify a part-whole-percent solution by substituting back			
PR-PC-10	Complete the two-step percent increase/decrease calculation			
PR-PC-11	Match the direction of change to the correct operation			
PR-PC-12	Reconcile two solution methods for a percent change			
PR-PC-13	Track the base across multiple percent-change steps			

Skill ID	Skill	Status (NY/R/M/IE)	Date	Notes
PR-PC-14	Recognize successive percent changes combine multiplicatively			
PR-PC-15	Apply and distinguish specialized percent contexts			
PR-RR-04	Distinguish part-to-part ratio from part-to-whole fraction			
PR-RR-05	Track which ratio number corresponds to which label			
PR-RR-06	Simplify a ratio using the greatest common factor			
PR-RR-07	Recognize equivalent ratios are related multiplicatively			
PR-RR-08	Verify one consistent scale factor applies to both parts			
PR-RR-09	Explain why matching simplest forms confirms equivalence			
PR-RR-10	Divide in the direction matching the requested unit			
PR-RR-11	Compare situations using unit rates, not raw totals			
PR-RR-12	Distinguish scaling a rate from combining quantities			

Skill ID	Skill	Status (NY/R/M/IE)	Date	Notes
PR-RR-13	Compare rates in compatible units, converting first if needed			
PR-RR-14	State both the unit rates and the conclusion separately			
PR-RR-15	Solve a proportion using cross-products correctly			
PR-RR-16	Choose a strategy and reconcile results when methods disagree			
PR-RR-17	Justify non-proportionality with specific named evidence			
PR-RR-18	Test any representation for proportionality using the same two checks			
PR-RR-19	Identify the same constant k across table, graph, and equation			
PR-RR-20	Construct genuinely contrasting proportional/non-proportional examples			
PR-RR-21	Apply a scale factor in the correct direction			
PR-RR-22	Verify similarity by checking all corresponding side pairs			

Skill ID	Skill	Status (NY/R/M/IE)	Date	Notes
PR-RR-23	Distinguish scaling a figure from combining measurements			
PR-RR-24	Classify the anchor model before calculating			
PR-RR-25	Solve and verify a mixed problem once classified			

Optional Forms

Class Summary Roster -- OPTIONAL. Use only if you want a single at-a-glance view across an entire class rather than one Recalculation Record per student; skip it if per-student records are enough.

Cross-Book Routing Log -- OPTIONAL. Use only once Book 1 or Book 2 skill maps exist and a student's gap actually traces back to an earlier book; not needed until that cross-book routing becomes real rather than hypothetical.