

Fractions Check-In: Adding and Subtracting

FA-FRAC-1 quiz formative due: Following lesson (after "Adding and subtracting fractions")

A 15-minute formative check-in quiz run in the lesson following "Adding and subtracting fractions". Ten short items ramp from same-denominator fluency through renaming with related denominators to a worded problem and an error-analysis explanation. No calculators; fraction walls permitted. Results sort students into consolidate / extend groups and directly evidence WA6MNAC2.

Task

Show what you know about adding and subtracting fractions. You may use your fraction wall. For Questions 5–8 you **must** show the renaming step — the renaming is the mathematics we are checking.

Part A — Same denominators

Q1. $\frac{2}{7} + \frac{3}{7} =$ _____

Q2. $\frac{7}{8} - \frac{3}{8} =$ _____ (simplest form: _____)

Part B — Spot the related denominators

Q3. Tick the pairs of denominators that are related:

- A. (2, 6)
- B. (4, 6)
- C. (5, 10)
- D. (6, 8)

Q4. Rename $\frac{3}{4}$ as twelfths: $\frac{3}{4} =$ _____

Part C — Rename, then count (show the renaming step)

Q5. $\frac{1}{2} + \frac{3}{8}$

Renaming step: _____ Answer: _____

Q6. $5/6 - 1/2$

Renaming step: _____ Answer: _____

Q7. $2/3 + 5/12$ (your answer will pass one whole — write it as a mixed number)

Renaming step: _____ Answer: _____

Q8. A jug is $9/10$ full of juice. Sam pours out $3/5$ of the jug. What fraction of the jug still has juice in it? Show your working and answer in a sentence.

Part D — Explain the mathematics

Q9. Zoe worked out $1/3 + 1/6 = 2/9$. Explain the mistake Zoe made and show the correct answer with a diagram or fraction wall.

Q10. Why must fractions have the same denominator before you can add or subtract them? Explain in one or two sentences using the words **parts** and **same size**.

Rubric criteria (weights as a percentage of this assessment)

Criterion	Weight	Descriptor
Calculating with related denominators	30%	Adds and subtracts fractions with related denominators accurately, including answers past one whole expressed as mixed numbers, and applies the skill in a worded context with a sentence answer (Q5–Q8).
Equivalence and renaming	30%	Identifies related denominators using knowledge of multiples and renames a fraction as an equivalent fraction by multiplying numerator and denominator by the same number (Q3–Q4 and the renaming step in Q5–Q8).
Reasoning and error analysis	20%	Explains why fractions require same-sized parts before adding or subtracting, and diagnoses the add-the-denominators error using size reasoning or a fraction-wall diagram (Q9–Q10).
Same-denominator fluency	20%	Adds and subtracts fractions with the same denominator accurately, keeping the denominator unchanged and expressing answers in simplest form where asked (Q1–Q2).