

Recipe Remix

Teacher Guide & Answer Keys

Grade 5 · All levels

Overview

Students run a cooking club. They scale a recipe by whole numbers, fractions and mixed numbers, explain scaling, interpret fractions as division when sharing, and divide whole numbers by unit fractions to find servings.

Time: 2 class periods · **Product:** Recipe Card Set · **Standards:** 5.NF.B.3, 5.NF.B.4, 5.NF.B.5, 5.NF.B.6, 5.NF.B.7

Suggested pacing

- Day 1: Introduce the challenge, read the scenario together, and work Parts 1–2 in pairs.
- Day 2: Finish the remaining parts and create the final product.
- Wrap-up: Share products and reflect on strategies.

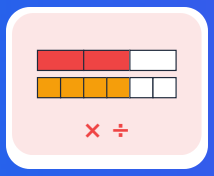
Levels

- **Remedial:** smaller numbers, fewer steps, more structure.
- **Standard:** grade-level numbers and the full set of tasks.
- **Advanced:** harder numbers, extra reasoning and multi-step questions.

All three levels practice the same learning goals, so the class can share and compare work.

Rubric

Category	4 Excellent	3 Good	2 Developing	1 Beginning
Math accuracy	All answers correct	Most answers correct	Some answers correct	Few answers correct
Shows work	Clear work for every step	Work for most steps	Some work shown	Little work shown
Explains thinking	Clear, complete explanations	Mostly clear explanations	Some explanation	Little explanation
Final product	Complete, neat and creative	Complete and neat	Partly complete	Not complete



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Answer key · Remedial KEY

Part 1: Make More

1. flour: 2 × 3

6 cups

2. sugar: $\frac{1}{2} \times 3$

$1\frac{1}{2}$ cups

3. milk: $\frac{3}{4} \times 3$

$2\frac{1}{4}$ cups

Part 2: Make Less

4. flour: $2 \times \frac{1}{2}$

1 cup

5. sugar: $\frac{1}{2} \times \frac{1}{2}$

$\frac{1}{4}$ cup

6. Is half a recipe more or less than the original? Why?

Less, because multiplying by $\frac{1}{2}$ (less than 1) makes each amount smaller.

Part 3: Fair Shares

7. How much does each friend get?

$\frac{3}{4}$ pan

8. Between which two whole numbers is that?

0 and 1

Part 4: Servings

9. How many servings can you make?

12 servings

10. Check with multiplication.

$12 \times \frac{1}{4} = 3$

Extension

Answers vary; check each product.

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Answer key · Standard KEY

Part 1: Make More

1. flour: $2\frac{1}{4} \times 1\frac{1}{2}$

$3\frac{3}{8}$ cups

2. sugar: $\frac{2}{3} \times 1\frac{1}{2}$

1 cup

3. milk: $\frac{3}{4} \times 1\frac{1}{2}$

$1\frac{1}{8}$ cups

Part 2: Make Less

4. flour: $2\frac{1}{4} \times \frac{1}{2}$

$1\frac{1}{8}$ cups

5. sugar: $\frac{2}{3} \times \frac{1}{2}$

$\frac{1}{3}$ cup

6. Is half a recipe more or less than the original? Why?

Less, because multiplying by $\frac{1}{2}$ (less than 1) makes each amount smaller.

Part 3: Fair Shares

7. How much does each friend get?

$1\frac{1}{4}$ pans

8. Between which two whole numbers is that?

1 and 2

Part 4: Servings

9. How many servings can you make?

12 servings

10. Check with multiplication.

$12 \times \frac{1}{3} = 4$

Extension

Answers vary; check each product.

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Answer key · Advanced KEY

Part 1: Make More

1. flour: $2\frac{1}{4} \times 2\frac{1}{2}$

$5\frac{5}{8}$ cups

2. sugar: $\frac{2}{3} \times 2\frac{1}{2}$

$1\frac{2}{3}$ cups

3. milk: $1\frac{1}{4} \times 2\frac{1}{2}$

$3\frac{1}{8}$ cups

Part 2: Make Less

4. flour: $2\frac{1}{4} \times \frac{1}{2}$

$1\frac{1}{8}$ cups

5. sugar: $\frac{2}{3} \times \frac{1}{2}$

$\frac{1}{3}$ cup

6. Is half a recipe more or less than the original? Why?

Less, because multiplying by $\frac{1}{2}$ (less than 1) makes each amount smaller.

Part 3: Fair Shares

7. How much does each friend get?

$2\frac{1}{3}$ pans

8. Between which two whole numbers is that?

2 and 3

Part 4: Servings

9. How many servings can you make?

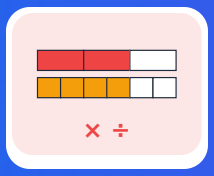
48 servings

10. Check with multiplication.

$48 \times \frac{1}{8} = 6$

Extension

Answers vary; check each product.



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Worked teacher example (Standard, Part 1)

flour: $2\frac{1}{4} \times 1\frac{1}{2}$

$3\frac{3}{8}$ cups

sugar: $\frac{2}{3} \times 1\frac{1}{2}$

1 cup

milk: $\frac{3}{4} \times 1\frac{1}{2}$

$1\frac{1}{8}$ cups

Model the first part aloud: read the situation, name the operation, estimate, solve, and check. Then let partners try Part 2.

Look for

- Students use correct notation and units in every answer.
- Students explain why an answer is reasonable (estimates, benchmarks, pictures).
- Final products show the math clearly, not just the answers.