

The Ribbon Shop

Teacher Guide · Solutions · Rubric

Grade 3 · All levels

Overview

Students run a ribbon shop where every ribbon is 1 yard long. They match equivalent orders on fraction strips, write whole numbers as fractions, and compare orders with the same numerator or the same denominator.

Time: 2 class periods · **Product:** Ribbon Order Chart
Standards: 3.NF.A.3.a, 3.NF.A.3.b, 3.NF.A.3.c, 3.NF.A.3.d
Prerequisite skills: Unit fractions and number lines (Unit 6)

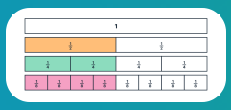
Learning targets

- I can show and explain equivalent fractions with models.
- I can write whole numbers as fractions.
- I can compare fractions with the same numerator or the same denominator and justify my answer.

Timing and materials

- Day 1 (45 min): matching equivalent orders with strips (Parts 1–2).
- Day 2 (45 min): comparing orders (Part 3) and the order chart.

Materials: Fraction strips (printable support page) or paper strips; Scissors and tape; Colored pencils. No accounts, paid products or student personal information are needed.



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The three versions

- Remedial: hints for a first step, partly filled tables, sentence frames and fewer open choices; the same learning targets.
- Standard: the full task set at grade level; students choose their strategies and models.
- Advanced: open design constraints, missing information, error analysis and a written justification; no hints.

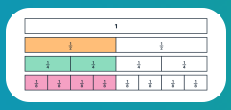
All versions use the same context and learning targets, so groups can share and compare work.

Implementation notes

- All strips must be the same length (the same whole).
- For every comparison, ask students to name the piece size.
- Advanced students judge customers' claims and build an equivalence chart.
- Before Part 1, read the challenge aloud and ask students to restate the goal.
- Close with a gallery walk: each group explains one strategy.

Rubric

Learning target	4 Exceeds	3 Meets	2 Approaching	1 Beginning
I can show and explain equivalent fractions with models.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can write whole numbers as fractions.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can compare fractions with the same numerator or the same denominator and justify my answer.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can explain my thinking with pictures, numbers and words.	Clear for every part	Clear for most parts	Some explanation	Little explanation
My ribbon order chart is complete and matches my math.	Complete, neat, accurate	Complete	Partly complete	Not complete



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Solutions · Remedial KEY

Part 1: Matching Orders

Two customers get the same amount of ribbon when their fractions are equivalent.

1. Order $\frac{1}{2}$ yard. Which order in fourths is the same length?

$\frac{2}{4}$ yard

2. Order $\frac{1}{4}$ yard. Which order in eighths is the same length?

$\frac{2}{8}$ yard

Part 2: Whole Yards

Some customers buy whole yards.

3. Write 2 yards as a fraction with denominator 1.

$\frac{2}{1}$

4. Write 1 yard in fourths.

$\frac{4}{4}$

5. Write 3 yards in halves.

$\frac{6}{2}$

Part 3: Who Gets More?

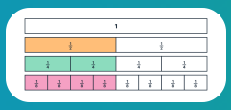
Compare the orders. Write >, < or = and explain.

6. $\frac{3}{8}$ yard ___ $\frac{5}{8}$ yard

<

7. $\frac{1}{3}$ yard ___ $\frac{1}{6}$ yard

>



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Part 4: Order Chart

Make a chart of 4 orders: two equivalent pairs and one comparison.

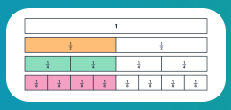
8. Your chart.

Answers vary; check the models.

Extension

Find three fractions equal to $\frac{1}{2}$ using halves, fourths, sixths or eighths.

$\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$



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Solutions · Standard KEY

Part 1: Matching Orders

Two customers get the same amount of ribbon when their fractions are equivalent.

1. Order $\frac{1}{2}$ yard. Which order in eighths is the same length?

$\frac{4}{8}$ **yard**

2. Order $\frac{2}{3}$ yard. Which order in sixths is the same length?

$\frac{4}{6}$ **yard**

3. Order $\frac{3}{4}$ yard. Which order in eighths is the same length?

$\frac{6}{8}$ **yard**

Part 2: Whole Yards

Some customers buy whole yards.

4. Write 2 yards as a fraction with denominator 1.

$\frac{2}{1}$

5. Write 1 yard in fourths.

$\frac{4}{4}$

6. Write 3 yards in halves.

$\frac{6}{2}$

Part 3: Who Gets More?

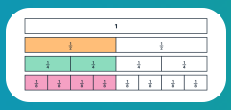
Compare the orders. Write >, < or = and explain.

7. $\frac{5}{6}$ yard ___ $\frac{2}{6}$ yard

>

8. $\frac{2}{4}$ yard ___ $\frac{2}{8}$ yard

>



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Part 4: Order Chart

Make a chart of 4 orders: two equivalent pairs and one comparison.

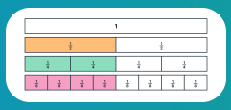
9. Your chart.

Answers vary; check the models.

Extension

Find three fractions equal to $\frac{1}{2}$ using halves, fourths, sixths or eighths.

$\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$



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Solutions · Advanced KEY

Part 1: Matching Orders

Two customers get the same amount of ribbon when their fractions are equivalent.

1. Order $\frac{2}{3}$ yard. Which order in sixths is the same length?

$\frac{4}{6}$ yard

2. Order $\frac{3}{4}$ yard. Which order in eighths is the same length?

$\frac{6}{8}$ yard

3. Order $\frac{3}{2}$ yard. Which order in fourths is the same length?

$\frac{6}{4}$ yard

Part 2: Whole Yards

Some customers buy whole yards.

4. Write 2 yards as a fraction with denominator 1.

$\frac{2}{1}$

5. Write 1 yard in fourths.

$\frac{4}{4}$

6. Write 3 yards in halves.

$\frac{6}{2}$

Part 3: Who Gets More?

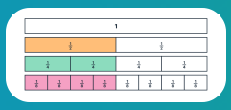
Compare the orders. Write >, < or = and explain.

7. $\frac{7}{8}$ yard ___ $\frac{5}{8}$ yard

>

8. $\frac{3}{6}$ yard ___ $\frac{3}{4}$ yard

<



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Part 4: Customer Claims

Decide if each claim is true. Explain with a model.

9. "$\frac{1}{8}$ yard is more than $\frac{1}{4}$ yard because 8 > 4."

False. Eighths are smaller pieces; $\frac{1}{8} < \frac{1}{4}$.

10. "$\frac{1}{2}$ of my small ribbon roll is the same as $\frac{1}{2}$ of the big roll."

False. The wholes are different sizes.

11. "$\frac{4}{4} = \frac{8}{8} = 1$ yard."

True. All the parts of one whole make 1.

Extension

Find three fractions equal to $\frac{1}{2}$ using halves, fourths, sixths or eighths.

$\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$