

Grade 4 • Unit 2 Worksheet

Fraction Equivalence and Comparison

Name: _____

Date: _____

Part A • Reading and Writing Fractions

1. Look at this fraction strip. It is shaded to show a fraction.

What fraction is shaded? _____

What fraction is NOT shaded? _____

Together, these add to _____ (the whole).



2. Draw a fraction strip partitioned into 8 equal parts. Shade 6 of them.

Fraction shaded: _____

Write this fraction in another equivalent form: _____

Part B • Equivalent Fractions

3. Find TWO fractions equivalent to $\frac{3}{4}$. Show each on a number line OR with a diagram.

a. Equivalent fraction 1: _____ . Show your reasoning:

b. Equivalent fraction 2: _____ . Show your reasoning:

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4. Mai wrote: " $\frac{6}{10} = \frac{3}{5}$ because I divided both top and bottom by 2." Lin asked, "WHY does that give an equivalent fraction?" Explain to Lin what dividing the top and bottom by the same number really DOES to the fraction strip.
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5. Fill in each blank to make a TRUE statement.

$$\frac{2}{3} = \frac{\quad}{12}$$

$$\frac{4}{5} = \frac{\quad}{100}$$

$$\frac{9}{12} = \frac{3}{\quad}$$

$$\frac{\quad}{8} = \frac{1}{2}$$

Part C • Comparing Fractions

6. Compare each pair using $<$, $>$, or $=$. For ONE comparison, briefly explain your strategy.

$$\frac{3}{5} \quad \frac{3}{8}$$

$$\frac{7}{10} \quad \frac{7}{12}$$

$$\frac{2}{3} \quad \frac{4}{6}$$

$$\frac{5}{8} \quad \frac{1}{2}$$

$$\frac{3}{4} \quad \frac{7}{10}$$

Pick one above. Strategy:

7. Order these fractions from LEAST to GREATEST. Show your reasoning (using benchmarks like $\frac{1}{2}$ and 1 may help).

$\frac{5}{12}$, $\frac{3}{4}$, $\frac{1}{3}$, $\frac{7}{8}$, $\frac{1}{2}$

Reasoning:

Order: _____, _____, _____, _____, _____

Part D • Reasoning and Error Analysis

8. Pat says, " $\frac{4}{5}$ is bigger than $\frac{4}{3}$ because $5 > 3$, so fifths are bigger pieces." Is Pat correct? Explain.

9. Sara says, " $\frac{2}{4}$ and $\frac{3}{6}$ must be equal because $2+2=4$ and $3+3=6$." Diego says, "They ARE equal, but Sara's reason isn't right." Who do you agree with? Explain.

10. Two pizzas are the same size. One is cut into 6 equal pieces; Han takes 5. The other is cut into 8 equal pieces; Mai takes 7. Who ate more pizza? Explain.

Answer: _____ ate more.

Part E • Thinking Deeply

11. Write a story problem whose answer is $\frac{3}{4}$ (NOT just 'shade 3 of 4 pieces'). Then solve it.

My problem:

My answer (and why it's $\frac{3}{4}$):

12. Why can't you compare $\frac{2}{3}$ and $\frac{3}{4}$ just by looking at numerators (2 vs. 3) OR just at denominators (3 vs. 4)? What DO you need to do?
