Unit 7 · Equivalent and Comparing Fractions Cheat Sheet

Unit 7 focus: equivalent fractions and whole numbers as fractions

1 Big Idea

Equivalent fractions are the same size, or the same point on a number line. Split every part into the same number of smaller parts to make one.

2 Important Vocabulary

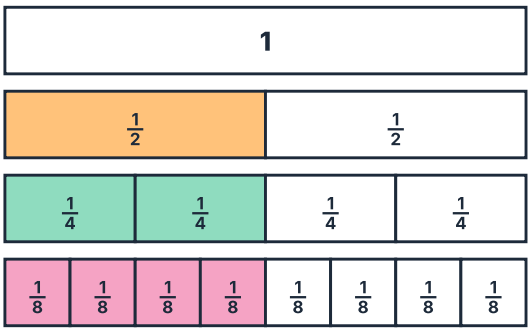
equivalent fractions	Fractions that name the same amount or the same point on a number line.	$\frac{1}{2} = \frac{2}{4}$
fraction strips	Bars of the same length cut into different equal parts.	halves, fourths, eighths strips
whole number	A counting number like 0, 1, 2, 3.	$3 = \frac{3}{1} = \frac{6}{2}$
equal to (=)	The symbol that means the same amount.	$\frac{4}{4} = 1$

3 How It Works

Find a fraction equivalent to $\frac{3}{4}$ with denominator 8.

Example: $\frac{3}{4} = ?/8$
Split each fourth into 2 parts: 4 parts become 8
Shaded parts double: 3 becomes 6
Answer: $\frac{6}{8}$

4 Visual Model



$\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$: same length on strips of the same whole.

5 Remember This · Watch Out!

★ Remember this

- n/n = 1 whole: $\frac{3}{3} = 1$.
- Whole numbers: $2 = \frac{2}{1} = \frac{4}{2} = \frac{8}{4}$.

⚠ Watch out!

- **Adding to top and bottom:** $\frac{1}{2}$ is not $\frac{2}{3}$
- **Different wholes:** compare parts of the same size whole

6 Try It!

1. $\frac{1}{3} = ?/6$
   Answer: ƨ
2. $\frac{8}{4} = ?$ (whole number)
   Answer: ƨ

Answers are printed upside down. Turn the page to check!

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More practice: comparing fractions with the same denominator or the same numerator

1 Big Idea

Same denominator: compare the numerators (same size pieces). Same numerator: the smaller denominator means bigger pieces.

2 Important Vocabulary

compare	Decide which is greater, less or equal.	$\frac{2}{6} < \frac{5}{6}$
greater than (>)	The symbol that means is greater than.	$\frac{3}{4} > \frac{1}{4}$
less than (<)	The symbol that means is less than.	$\frac{1}{8} < \frac{1}{3}$
same whole	Fractions can only be compared when they are parts of the same size whole.	$\frac{1}{2}$ of a small pizza is not $\frac{1}{2}$ of a large pizza

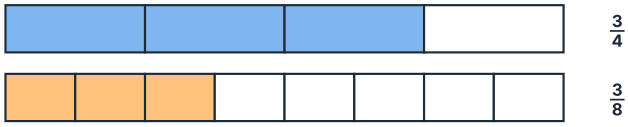
3 How It Works

Compare $\frac{3}{4}$ and $\frac{3}{8}$.

Example: Same numerator: 3 pieces each
Size of pieces: fourths are bigger than eighths
So: $\frac{3}{4} > \frac{3}{8}$

Answer: $\frac{3}{4} > \frac{3}{8}$

4 Visual Model



Same whole: $\frac{3}{4}$ covers more than $\frac{3}{8}$.

5 ★ Remember This · Watch Out!

★ Remember this

- Same bottom: more pieces is more.
- Same top: bigger pieces (smaller denominator) is more.

⚠ Watch out!

- **Bigger denominator, bigger fraction?:** $\frac{1}{8} < \frac{1}{4}$
- **Different wholes:** you cannot compare $\frac{1}{2}$ of a small and a big pizza

6 Try It!

1. $\frac{2}{6}$ ___ $\frac{5}{6}$
   Answer: >
2. $\frac{1}{3}$ ___ $\frac{1}{6}$
   Answer: <

Answers are printed upside down. Turn the page to check!