

Homework & Practice 8-6

Compare Fractions

Another Look!

Compare $\frac{2}{3}$ and $\frac{1}{2}$.

One Way

Rename one or both fractions so they both have the same denominator.

Rename both $\frac{2}{3}$ and $\frac{1}{2}$.

$$\frac{2}{3} = \frac{2}{3} \times \frac{2}{2} = \frac{4}{6}$$

$$\frac{1}{2} = \frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$$

$$\frac{4}{6} > \frac{3}{6}, \text{ so } \frac{2}{3} > \frac{1}{2}.$$

Another Way

Rename one or both fractions so they both have the same numerator.

Leave $\frac{2}{3}$ alone. Rename $\frac{1}{2}$.

$$\frac{1}{2} = \frac{1}{2} \times \frac{2}{2} = \frac{2}{4}$$

$$\frac{2}{3} > \frac{2}{4}, \text{ so } \frac{2}{3} > \frac{1}{2}.$$

You can use fraction strips, number lines, or benchmark fractions to justify your comparisons.



For **1–16**, find equivalent fractions to compare. Then write $>$, $<$, or $=$. Use fraction strips or number lines.

- | | | | |
|--|--|--|--|
| 1. $\frac{5}{6} \bigcirc \frac{2}{3}$ | 2. $\frac{1}{5} \bigcirc \frac{2}{8}$ | 3. $\frac{9}{10} \bigcirc \frac{6}{8}$ | 4. $\frac{3}{4} \bigcirc \frac{1}{4}$ |
| 5. $\frac{7}{8} \bigcirc \frac{5}{10}$ | 6. $\frac{2}{5} \bigcirc \frac{2}{6}$ | 7. $\frac{1}{3} \bigcirc \frac{3}{8}$ | 8. $\frac{2}{10} \bigcirc \frac{3}{5}$ |
| 9. $\frac{8}{10} \bigcirc \frac{3}{4}$ | 10. $\frac{3}{8} \bigcirc \frac{11}{12}$ | 11. $\frac{2}{3} \bigcirc \frac{10}{12}$ | 12. $\frac{7}{8} \bigcirc \frac{1}{6}$ |
| 13. $\frac{3}{8} \bigcirc \frac{7}{8}$ | 14. $\frac{2}{4} \bigcirc \frac{4}{8}$ | 15. $\frac{6}{8} \bigcirc \frac{8}{12}$ | 16. $\frac{1}{3} \bigcirc \frac{4}{8}$ |

For **17–18**, use the table at the right. The same number of students attended school each day.

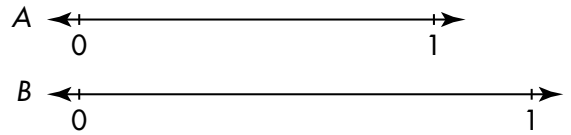
17. Did more students buy lunch on Tuesday or on Wednesday?
18. Did more students buy lunch on Thursday or on Friday?

Day	Fraction of Students Buying Lunch
Monday	$\frac{1}{2}$
Tuesday	$\frac{2}{5}$
Wednesday	$\frac{3}{4}$
Thursday	$\frac{5}{8}$
Friday	$\frac{4}{6}$

19. **Number Sense** Explain how you know $\frac{21}{100}$ is greater than $\frac{1}{5}$.

20. An orange was divided into 10 equal sections. Lily ate 4 sections. Manny and Emma ate the remaining sections. What fraction of the orange did Manny and Emma eat?

21. Which is longer, $\frac{1}{4}$ of line A or $\frac{1}{4}$ of line B? Explain.



22. **MP.3 Critique Reasoning** James says $\frac{5}{5}$ is greater than $\frac{9}{10}$. Is James correct? Explain.

23. Write 3 fractions with unlike denominators that are greater than the fraction shown below.



24. Ann works at a store in the mall and earns a wage of \$8 an hour. She earns \$10 an hour if she works on the weekends. Last week she worked 24 hours during the week and 16 hours on the weekend. How much did Ann earn last week?

25. **Higher Order Thinking** Four friends each ordered individual pizzas at a restaurant. Suzy ate $\frac{3}{8}$ of her pizza. Ethan ate $\frac{3}{5}$ of his pizza. Tenaya ate $\frac{4}{6}$ of her pizza. Sam ate $\frac{1}{3}$ of his pizza. Who ate more than half of their pizza? less than half?

Common Core Assessment

26. Select all the answer choices that show a correct comparison.

$\frac{10}{12} > \frac{5}{6}$

$\frac{6}{8} = \frac{3}{4}$

$\frac{1}{8} > \frac{1}{10}$

$\frac{9}{10} < \frac{4}{5}$

$\frac{1}{100} > \frac{1}{10}$

27. Select all the answer choices that show a correct comparison.

$\frac{4}{12} < \frac{2}{5}$

$\frac{6}{10} > \frac{60}{100}$

$\frac{1}{4} < \frac{1}{10}$

$\frac{3}{10} < \frac{1}{2}$

$\frac{3}{5} < \frac{6}{12}$