

Grade 4 · Equivalent Fractions and Comparing Fractions · Quiz

Common Core 4.NF.A.1, 4.NF.A.2 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

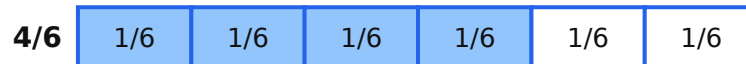
Try these 10 multiple-choice questions on equivalent fractions and comparing fractions.
Pick one answer for each question, then read the explanation to learn from any mistake.

Grade 4 Common Core: 4.NF.A.1 · 4.NF.A.2

Questions

Question 1

A bar shows $\frac{4}{6}$ shaded. Which fraction is equivalent to it?



Four sixths.

- A. $\frac{4}{12}$
- B. $\frac{1}{2}$
- C. $\frac{4}{12}$
- D. $\frac{4}{3}$

Question 2

Which fraction is equivalent to $\frac{6}{8}$?

- A. $\frac{6}{4}$
- B. $\frac{1}{2}$
- C. $\frac{4}{4}$
- D. $\frac{3}{4}$

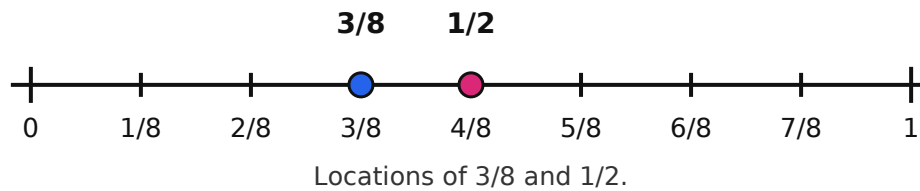
Question 3

What number makes $\frac{3}{5} = \frac{?}{20}$ true?

- A. 12
- B. 15
- C. 18
- D. 8

Question 4

Which comparison is true?



- A. $\frac{3}{8} < \frac{1}{2}$
- B. $\frac{3}{8} > \frac{1}{2}$
- C. $\frac{3}{8} = \frac{1}{2}$
- D. $\frac{3}{8} < \frac{1}{4}$

Question 5

Which fraction is the greatest?

- A. $\frac{3}{12}$
- B. $\frac{4}{12}$
- C. $\frac{4}{4}$
- D. $\frac{7}{12}$

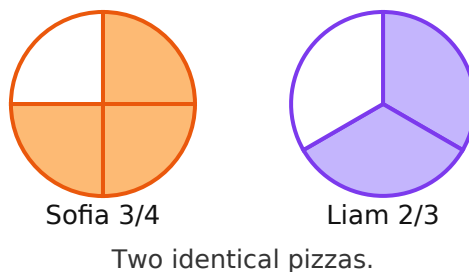
Question 6

Which fraction is NOT equivalent to $\frac{2}{5}$?

- A. $\frac{4}{10}$
- B. $\frac{6}{15}$
- C. $\frac{6}{20}$
- D. $\frac{10}{25}$

Question 7

Sofia ate $\frac{3}{4}$ of a pizza and Liam ate $\frac{2}{3}$ of an identical pizza. Who ate more?



- A. Liam, because $\frac{8}{12} > \frac{9}{12}$
- B. They ate the same amount
- C. Liam, because $3 < 4$

D. Sofia, because $\frac{9}{12} > \frac{8}{12}$

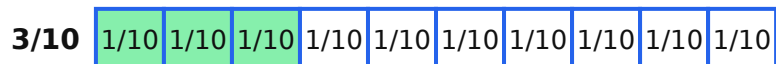
Question 8

Which comparison is true?

- A. $\frac{4}{9} < \frac{4}{7}$
- B. $\frac{4}{9} > \frac{4}{7}$
- C. $\frac{4}{9} = \frac{4}{7}$
- D. $\frac{4}{9} < \frac{4}{12}$

Question 9

What number makes $\frac{3}{10} = \frac{?}{100}$ true?



Three tenths.

- A. 3
- B. 13
- C. 30
- D. 300

Question 10

Which list is in order from least to greatest?

- A. $\frac{7}{10}, \frac{3}{5}, \frac{1}{2}$
- B. $\frac{3}{5}, \frac{1}{2}, \frac{7}{10}$
- C. $\frac{1}{2}, \frac{7}{10}, \frac{3}{5}$
- D. $\frac{1}{2}, \frac{3}{5}, \frac{7}{10}$

Answer key

1. **B** - Divide the numerator and denominator by 2 to get $\frac{2}{3}$. Changing only the denominator ($\frac{4}{12}$) changes the value.
2. **B** - Divide both numbers by 2. Dividing only the denominator or only the numerator changes the value.
3. **A** - Multiply the denominator by 4 ($5 \times 4 = 20$), so multiply the numerator by 4: $3 \times 4 = 12$.
4. **A** - Half of 8 is 4, and 3 is less than 4. A common error is thinking that 3 is large because of the numerator alone.
5. **C** - In twelfths, $\frac{2}{3}$, $\frac{3}{4}$, and $\frac{7}{12}$ are $\frac{8}{12}$, $\frac{9}{12}$, and $\frac{7}{12}$. Also $\frac{3}{4} = \frac{6}{8}$, which is more than $\frac{5}{8}$. The largest numerator (7) does not decide it.
6. **C** - $\frac{2}{5} = \frac{8}{20}$, so $\frac{6}{20}$ does not match. The other three come from multiplying 2 and 5 by the same number.
7. **D** - $\frac{3}{4} = \frac{9}{12}$ and $\frac{2}{3} = \frac{8}{12}$. Nine twelfths is more than eight twelfths.
8. **A** - The numerators match. Ninths are smaller pieces than sevenths, so 4 ninths is less than 4 sevenths.
9. **C** - $10 \times 10 = 100$, so $3 \times 10 = 30$. Adding 10 to the numerator (13) is a common mistake.
10. **D** - In tenths the fractions are $\frac{5}{10}$, $\frac{6}{10}$, and $\frac{7}{10}$.

Remember:

- Equivalent fractions have the same value and sit at the same point on a number line.
- Multiply or divide the numerator and denominator by the same nonzero number to make an equivalent fraction.
- Fractions with the same denominator are compared by their numerators; with the same numerator, the larger denominator means the smaller fraction.
- One half is a handy benchmark for comparing fractions.