

Grade 3 · Equivalent and Comparing Fractions · Quiz

Common Core 3.NF.A.3 · mathovore.fr

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

This quiz has 10 multiple-choice questions on equivalent fractions, whole numbers as fractions, and comparing fractions. Pick the one best answer for each question, then read the explanation to learn from any mistake.

Grade 3 Common Core: 3.NF.A.3

Questions

Question 1

The bars are the same size. Which fraction fits in the blank so that $\frac{1}{2} =$ the blank?



Two bars of the same size.

- A. $\frac{4}{8}$
- B. $\frac{1}{8}$
- C. $\frac{1}{4}$
- D. $\frac{1}{2}$

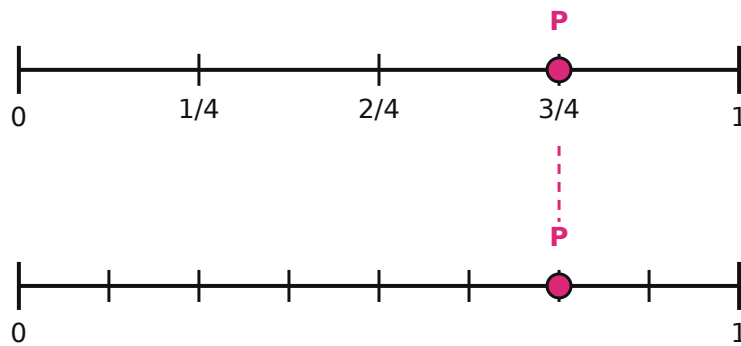
Question 2

Which number makes this equation true? $\frac{1}{3} = \frac{?}{6}$

- A. 2
- B. 1
- C. 3
- D. 6

Question 3

Point P is at $\frac{3}{4}$ on the top line. Which fraction names P on the bottom line?



Two number lines from 0 to 1.

- A. $\frac{3}{4}$
- B. $\frac{4}{4}$
- C. $\frac{1}{4}$
- D. $\frac{6}{8}$

Question 4

Which fraction is another name for the whole number 4?

- A. $\frac{1}{4}$
- B. $\frac{4}{4}$
- C. $\frac{4}{8}$
- D. $\frac{4}{1}$

Question 5

Which fraction is equal to 1?

- A. $\frac{1}{8}$
- B. $\frac{8}{8}$
- C. $\frac{1}{1}$
- D. $\frac{8}{1}$

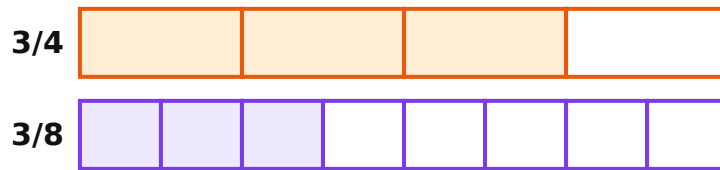
Question 6

Which comparison is true?

- A. $\frac{5}{10} < \frac{7}{10}$
- B. $\frac{5}{10} > \frac{7}{10}$
- C. $\frac{5}{10} = \frac{7}{10}$
- D. $\frac{5}{10} < \frac{7}{8}$

Question 7

The bars are the same size. Which fraction is greater?



Two bars of the same size.

- A. $\frac{3}{8}$
- B. They are equal
- C. $\frac{3}{4}$
- D. There is not enough information

Question 8

Which list is in order from least to greatest?

- A. $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}$
- B. $\frac{1}{4}, \frac{1}{8}, \frac{1}{2}$
- C. $\frac{1}{8}, \frac{1}{2}, \frac{1}{4}$
- D. $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}$

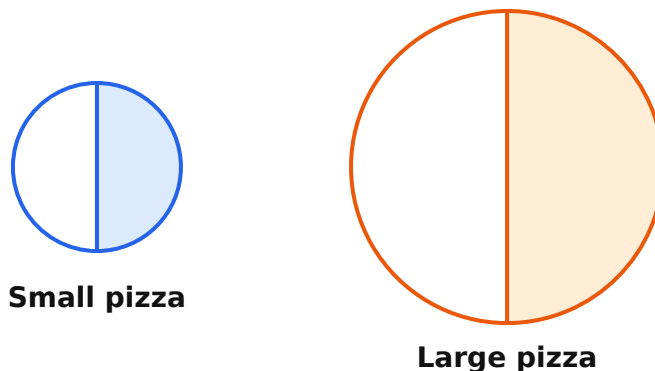
Question 9

Two pizzas are the same size. Maya eats $\frac{2}{3}$ of one. Liam eats $\frac{2}{6}$ of the other. Who eats more pizza?

- A. Liam, because 6 is greater than 3
- B. They eat the same amount
- C. Maya, because thirds are bigger than sixths
- D. It is impossible to tell

Question 10

Sofia eats $\frac{1}{2}$ of a small pizza. Jamal eats $\frac{1}{2}$ of a large pizza. Which statement is true?



A small pizza and a large pizza.

- A. They ate the same amount, because both ate one half

- B. Jamal ate more, because his whole is larger
- C. Sofia ate more, because her pizza is smaller
- D. Neither of them ate any pizza

Answer key

1. **A** - Four of the 8 equal parts cover the same length as half the bar, so $\frac{1}{2} = \frac{4}{8}$. A common mistake is to copy the numerator 1 or 2.
2. **A** - Each third is cut into 2 sixths, so $\frac{1}{3} = \frac{2}{6}$. The answer 3 mixes this up with $\frac{1}{2} = \frac{3}{6}$.
3. **C** - The bottom line has 8 equal parts and P is 6 parts from 0, so $\frac{3}{4} = \frac{6}{8}$. Choosing $\frac{3}{8}$ keeps the numerator but changes the size of the parts.
4. **D** - A whole number is a fraction with denominator 1, so $4 = \frac{4}{1}$. The fraction $\frac{4}{4}$ equals 1, not 4.
5. **B** - When the numerator and denominator are the same, the whole is fully counted, so $\frac{6}{6} = 1$. The fraction $\frac{6}{3}$ equals 2.
6. **A** - Both fractions are eighths, so the larger numerator is greater: $\frac{5}{8}$ is less than $\frac{7}{8}$. The other statements reverse or ignore that order.
7. **C** - Both count 3 parts, but fourths are bigger than eighths. So $\frac{3}{4} > \frac{3}{8}$. Many students wrongly think the bigger denominator makes a bigger fraction.
8. **D** - With the same numerator, a bigger denominator means smaller parts. So $\frac{1}{8}$ is less than $\frac{1}{4}$, which is less than $\frac{1}{2}$. The reverse list follows the denominators upward.
9. **C** - The numerators match, so the fraction with the smaller denominator is greater: $\frac{2}{3} > \frac{2}{6}$. Choosing Liam compares only the denominators in the wrong direction.
10. **B** - Fractions can be compared only when they describe the same whole. Half of a large pizza is more pizza than half of a small one.

Remember:

- Equivalent fractions are the same size and sit at the same point on a number line.
- Examples: $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$ and $\frac{2}{3} = \frac{4}{6}$.
- Any whole number can be written with denominator 1, and $\frac{4}{4}$ equals 1.
- With the same denominator, the larger numerator is the greater fraction.
- With the same numerator, the smaller denominator is the greater fraction. Compare only fractions of the same whole.