

Grade 4 - Equivalent Fractions - Quiz

Common Core 4.NF.A.1 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Choose the best answer for each of the 10 questions on equivalent fractions. Read the explanation after each question to learn from any mistake.

Grade 4 · Common Core State Standards: **4.NF.A.1**

Questions

Question 1

Which fraction is equivalent to $\frac{1}{2}$?

- A. $\frac{1}{4}$
- B. $\frac{2}{4}$
- C. $\frac{4}{8}$
- D. $\frac{8}{16}$

Question 2

Which number makes this true? $\frac{3}{5} = \frac{?}{10}$

- A. 8
- B. 5
- C. 6
- D. 13

Question 3



Strips A and B.

The strips show equal amounts. What equation do they show?

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

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

Question 4

Which fraction is NOT equivalent to $\frac{2}{3}$?

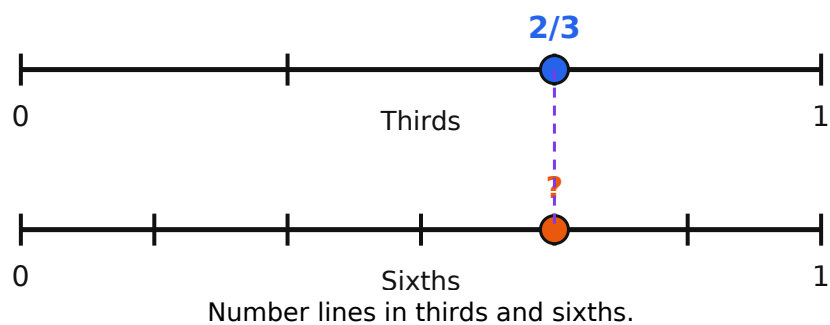
- A. $\frac{4}{6}$
- B. $\frac{8}{12}$
- C. $\frac{6}{8}$
- D. $\frac{10}{15}$

Question 5

Which fraction shows $\frac{7}{10}$ written as hundredths?

- A. $\frac{70}{100}$
- B. $\frac{7}{100}$
- C. $\frac{17}{100}$
- D. $\frac{10}{100}$

Question 6



The dots mark the same point. What fraction belongs at the question mark?

- A. $\frac{2}{3}$
- B. $\frac{4}{6}$
- C. $\frac{10}{12}$
- D. $\frac{5}{6}$

Question 7

Multiply the numerator and denominator of $\frac{5}{6}$ by 2. Which fraction do you get?

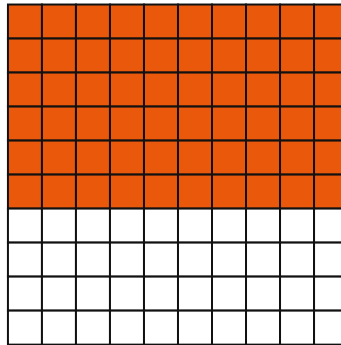
- A. $\frac{10}{12}$
- B. $\frac{7}{8}$
- C. $\frac{10}{6}$
- D. $\frac{5}{12}$

Question 8

Mia says $\frac{1}{4} = \frac{2}{5}$ because she added 1 to both parts. What is her mistake?

- A. She should have subtracted 1 from both parts
- B. She added instead of multiplying both parts by the same number
- C. She should have multiplied only the numerator
- D. She made no mistake because the fractions are equal

Question 9



60 squares shaded out of 100.

Which fraction with denominator 10 names the shaded part?

- A. $\frac{6}{100}$
- B. $\frac{6}{10}$
- C. $\frac{60}{10}$
- D. $\frac{1}{6}$

Question 10

A recipe needs $\frac{3}{4}$ cup of flour. Sofia has a $\frac{1}{8}$ -cup scoop. How many scoops does she need?

- A. 6
- B. 3
- C. 4
- D. 8

Answers

1. **D** - Multiply the top and bottom of $\frac{1}{2}$ by 4 to get $\frac{4}{8}$. The fraction $\frac{2}{8}$ changes the amount.
2. **C** - The denominator is multiplied by 2, so the numerator must be too: $3 \times 2 = 6$. Adding 5 gives the wrong 8.
3. **D** - Strip A has 3 of 4 parts shaded and strip B has 6 of 8 parts. Both are shaded to the same length.
4. **C** - From 3 to 8 is not a whole-number multiple, and $\frac{6}{8}$ equals $\frac{3}{4}$. The other fractions come from multiplying 2 and 3 by 2, 4 or 5.
5. **A** - Multiply the top and bottom by 10: $7 \times 10 = 70$ and $10 \times 10 = 100$. Keeping the 7 only changes one part.
6. **B** - The bottom line has 6 parts. Two thirds is the same as 4 sixths, so the dot is at the 4th mark.
7. **A** - Both parts are multiplied: $5 \times 2 = 10$ and $6 \times 2 = 12$. Multiplying only one part changes the value.
8. **B** - Adding the same number does not keep the amount. $\frac{1}{4} = \frac{2}{8}$ comes from multiplying both parts by 2.
9. **B** - 60 out of 100 is 6 tenths. Divide the top and bottom by 10.
10. **A** - $\frac{3}{4} = \frac{6}{8}$, so she needs 6 scoops. Many students stop at the 3 in the numerator.

Remember

- Equivalent fractions name the same amount and sit at the same point on a number line.
- Multiply or divide the numerator and denominator by the same number to make an equivalent fraction.
- Multiplying by $\frac{2}{2}$, $\frac{3}{3}$ or any $\frac{n}{n}$ is multiplying by 1, so the value stays the same.
- Tenths change to hundredths by multiplying by 10, so $\frac{3}{10} = \frac{30}{100}$.
- Adding the same number to the top and bottom does not make an equivalent fraction.