

# Grade 4 - Equivalent Fractions - Answer Key

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Use this answer key to check each problem on the equivalent fractions worksheet. Every solution shows the number that multiplies or divides the numerator and the denominator, so mistakes are easy to find.

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

## Exercise 1 - Matching strips

Strip A: 1 of 3 parts is shaded,  $\frac{1}{3}$ . Strip B: 2 of 6 parts are shaded,  $\frac{2}{6}$ .

The shaded parts are the same length.

Answer:  $\frac{1}{3} = \frac{2}{6}$ , **yes**.

## Exercise 2 - Halves to sixths

$2 \times 3 = 6$ , so multiply the numerator by 3 too:  $1 \times 3 = 3$ .

Answer:  $\frac{1}{2} = \frac{3}{6}$ .

## Exercise 3 - Thirds to twelfths

$3 \times 4 = 12$ , so  $2 \times 4 = 8$ .

$$\frac{2}{3} = \frac{8}{12}$$

Multiply the top and bottom by 4.

Answer:  $\frac{2}{3} = \frac{8}{12}$ .

### Exercise 4 - Fourths to eighths

$4 \times 2 = 8$ , so  $3 \times 2 = 6$ .

Answer:  $\frac{3}{4} = \frac{6}{8}$ .

### Exercise 5 - Fifths to tenths

$5 \times 2 = 10$ , so  $1 \times 2 = 2$ .

Answer:  $\frac{1}{5} = \frac{2}{10}$ .

### Exercise 6 - Divide to match

The denominator went from 6 to 3, so divide by 2.  $4 \div 2 = 2$ .

Answer:  $\frac{4}{6} = \frac{2}{3}$ .

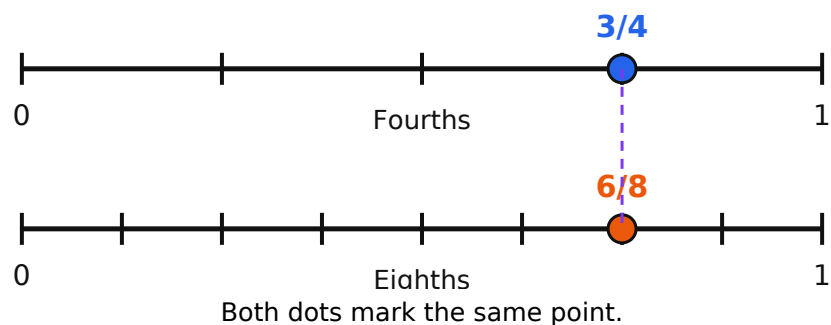
### Exercise 7 - Find the denominator

The numerator went from 6 to 3, so divide by 2.  $8 \div 2 = 4$ .

Answer:  $\frac{6}{8} = \frac{3}{4}$ .

### Exercise 8 - Number line match

The dashed line shows the dots are at the same point. The bottom line has 8 parts, and the dot is at the 6th mark.



Check:  $3 \times 2 = 6$  and  $4 \times 2 = 8$ .

Answer:  $\frac{6}{8}$ .

### Exercise 9 - Tenths and hundredths

$5 \times 2 = 10$ , so  $\frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10}$ .

$5 \times 20 = 100$ , so  $\frac{2}{5} = \frac{2 \times 20}{5 \times 20} = \frac{40}{100}$ .

Answer:  $\frac{4}{10}$  and  $\frac{40}{100}$ .

### Exercise 10 - Tenths to hundredths

$10 \times 10 = 100$ , so multiply the numerator by 10:  $3 \times 10 = 30$ .

Answer:  $\frac{30}{100}$ .

### Exercise 11 - Is it equal?

$6 \times 2 = 12$  and  $5 \times 2 = 10$ .

Answer: **Yes**,  $\frac{5}{6} = \frac{10}{12}$ .

### Exercise 12 - Not equal

The numerator was multiplied by  $3 \times 2 = 6$ , which is 2. The denominator would be  $8 \times 2 = 16$ , not 12.

Also  $\frac{6}{12}$  is equal to  $\frac{1}{2}$ , and  $\frac{3}{8}$  is less than  $\frac{1}{2}$ .

Answer: **No. The same number did not multiply both parts.**

### Exercise 13 - Pick the match

Divide the numerator and denominator by 3:  $9 \div 3 = 3$  and  $12 \div 3 = 4$ .

Answer:  $\frac{3}{4}$ .

### Exercise 14 - Smaller denominator

$12 \div 4 = 3$ , so divide the numerator by 4:  $8 \div 4 = 2$ .

Answer:  $\frac{2}{3}$ .

### Exercise 15 - Pizza share

$4 \times 2 = 8$  and  $2 \times 2 = 4$ , so  $\frac{2}{4} = \frac{4}{8}$ .

Answer: **Yes, they ate the same amount (one half).**

### Exercise 16 - Field in twelfths

$4 \times 3 = 12$ , so  $3 \times 3 = 9$ .

Answer:  $\frac{9}{12}$ .

### Exercise 17 - Dimes in a dollar

3 dimes is  $\frac{3}{10}$  of a dollar.

$\frac{3}{10} = \frac{3 \times 10}{10 \times 10} = \frac{30}{100}$ , and 30 cents is 30 out of 100 cents.

Answer:  $\frac{3}{10} = \frac{30}{100}$  **of a dollar.**

### Exercise 18 - Milk scoops

Change thirds to sixths:  $\frac{2}{3} = \frac{4}{6}$ .

$\frac{4}{6}$  is four sixths, so he needs 4 scoops.



Four sixths cover the same length as two thirds.

Answer: **4 scoops.**

### Exercise 19 - Diego's list

Start with  $\frac{2}{3}$ . Multiply the top and bottom by 2 to get  $\frac{4}{6}$ , by 3 to get  $\frac{6}{9}$ , and by 4 to get  $\frac{8}{12}$ .

Answer: **Yes. Each fraction comes from multiplying 2 and 3 by the same number.**

### Exercise 20 - Garden plan

$$\frac{3}{5} = \frac{3 \times 2}{5 \times 2} = \frac{6}{10}.$$

$$\frac{3}{5} = \frac{3 \times 20}{5 \times 20} = \frac{60}{100}.$$

Answer:  $\frac{6}{10}$  and  $\frac{60}{100}$ ; **60 squares.**