

# Equivalent Fractions Worksheet Questions and Answers PDF

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## Part 1: Building a Foundation

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### What is the definition of equivalent fractions?

*Hint: Think about fractions that represent the same value.*

- A) Fractions with the same numerator and denominator
- B) Fractions that represent the same part of a whole ✓
- C) Fractions that have different values
- D) Fractions that cannot be simplified

Equivalent fractions are fractions that represent the same part of a whole.

### What is the definition of equivalent fractions?

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- C) Fractions that have different values
- D) Fractions that cannot be simplified

Equivalent fractions are fractions that represent the same part of a whole.

**Which of the following are methods to identify equivalent fractions? (Select all that apply)**

*Hint: Consider mathematical operations that maintain the value of fractions.*

- A) Cross-multiplication ✓**
- B) Adding the numerators
- C) Multiplying the numerator and denominator by the same number ✓**
- D) Subtractin the denominators

Methods to identify equivalent fractions include cross-multiplication and multiplying by the same number.

**Which of the following are methods to identify equivalent fractions? (Select all that apply)**

*Hint: Consider the operations that can show equivalence.*

- A) Cross-multiplication ✓**
- B) Adding the numerators
- C) Multiplying the numerator and denominator by the same number ✓**
- D) Subtracting the denominators

Methods to identify equivalent fractions include cross-multiplication and multiplying by the same number.

**Which of the following are methods to identify equivalent fractions? (Select all that apply)**

*Hint: Consider mathematical operations that maintain equality.*

- A) Cross-multiplication ✓**
- B) Adding the numerators
- C) Multiplying the numerator and denominator by the same number ✓**
- D) Subtracting the denominators

Methods to identify equivalent fractions include cross-multiplication and multiplying by the same number.

**Explain how you can determine if two fractions are equivalent using cross-multiplication.**

*Hint: Think about the relationship between the numerators and denominators.*

**To determine if two fractions are equivalent using cross-multiplication, multiply the numerator of the first fraction by the denominator of the second fraction and compare it to the product of the numerator of the second fraction and the denominator of the first fraction.**

**Explain how you can determine if two fractions are equivalent using cross-multiplication.**

*Hint: Think about the relationship between the numerators and denominators.*

**Cross-multiplication involves multiplying the numerator of one fraction by the denominator of the other and comparing the results.**

**Explain how you can determine if two fractions are equivalent using cross-multiplication.**

*Hint: Think about the relationship between the numerators and denominators.*

**You can determine if two fractions are equivalent by cross-multiplying and comparing the products.**

**List two ways to create equivalent fractions from a given fraction.**

Hint: Consider operations that involve the numerator and denominator.

1. Method 1

▮ Multiply both the numerator and denominator by the same number.

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2. Method 2

▮ Divide both the numerator and denominator by the same number.

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▮ You can create equivalent fractions by multiplying or dividing both the numerator and denominator by the same non-zero number.

## Part 2: Comprehension and Application

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**If you simplify the fraction  $8/12$ , what is the equivalent fraction in its simplest form?**

Hint: Think about the greatest common divisor.

- A)  $2/3$  ✓  
 B)  $4/6$   
 C)  $1/2$   
 D)  $3/4$

▮ The equivalent fraction in its simplest form is  $2/3$ .

**If you simplify the fraction  $8/12$ , what is the equivalent fraction in its simplest form?**

Hint: Think about the greatest common divisor.

- A)  $2/3$  ✓  
 B)  $4/6$   
 C)  $1/2$   
 D)  $3/4$

| The simplest form of  $\frac{8}{12}$  is  $\frac{2}{3}$ .

**If you simplify the fraction  $\frac{8}{12}$ , what is the equivalent fraction in its simplest form?**

*Hint: Think about the greatest common divisor.*

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

| The equivalent fraction in its simplest form is  $\frac{2}{3}$ .

**Which of the following fractions are equivalent to  $\frac{3}{4}$ ? (Select all that apply)**

*Hint: Consider fractions that can be simplified to the same value.*

- A)  $\frac{6}{8}$  ✓
- B)  $\frac{9}{12}$  ✓
- C)  $\frac{12}{16}$  ✓
- D)  $\frac{15}{20}$  ✓

| Fractions equivalent to  $\frac{3}{4}$  include  $\frac{6}{8}$ ,  $\frac{9}{12}$ ,  $\frac{12}{16}$ , and  $\frac{15}{20}$ .

**Which of the following fractions are equivalent to  $\frac{3}{4}$ ? (Select all that apply)**

*Hint: Consider fractions that can be simplified to the same value.*

- A)  $\frac{6}{8}$  ✓
- B)  $\frac{9}{12}$  ✓
- C)  $\frac{12}{16}$  ✓
- D)  $\frac{15}{20}$  ✓

| The fractions equivalent to  $\frac{3}{4}$  are  $\frac{6}{8}$ ,  $\frac{9}{12}$ ,  $\frac{12}{16}$ , and  $\frac{15}{20}$ .

**Which of the following fractions are equivalent to  $\frac{3}{4}$ ? (Select all that apply)**

*Hint: Consider fractions that can be simplified to the same value.*

- A)  $\frac{6}{8}$  ✓
- B)  $\frac{9}{12}$  ✓
- C)  $\frac{12}{16}$  ✓

D) 15/20

**|** Fractions equivalent to  $\frac{3}{4}$  include  $\frac{6}{8}$ ,  $\frac{9}{12}$ , and  $\frac{12}{16}$ .

**Describe the process of simplifying a fraction and why it is important.**

*Hint: Think about the steps involved in simplification.*

**|** Simplifying a fraction involves dividing the numerator and denominator by their greatest common factor to make it easier to understand.

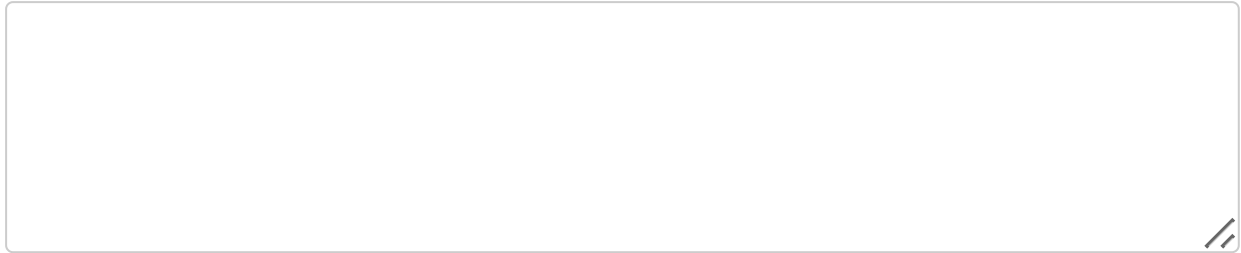
**Describe the process of simplifying a fraction and why it is important.**

*Hint: Think about reducing fractions to their simplest form.*

**|** To simplify a fraction, divide both the numerator and denominator by their greatest common divisor. This is important because it makes fractions easier to work with and understand.

**Describe the process of simplifying a fraction and why it is important.**

*Hint: Think about the steps involved in simplification.*



**Simplifying a fraction involves dividing the numerator and denominator by their greatest common divisor, which makes calculations easier.**

**You have a recipe that requires  $\frac{2}{3}$  cup of sugar. If you only have a  $\frac{1}{3}$  cup measuring cup, how many times do you need to fill it to get the equivalent amount?**

*Hint: Think about how many  $\frac{1}{3}$  cups make up  $\frac{2}{3}$  cup.*

- A) 1 time
- B) 2 times ✓
- C) 3 times
- D) 4 times

**You need to fill the  $\frac{1}{3}$  cup 2 times to get  $\frac{2}{3}$  cup of sugar.**

**You have a recipe that requires  $\frac{2}{3}$  cup of sugar. If you only have a  $\frac{1}{3}$  cup measuring cup, how many times do you need to fill it to get the equivalent amount?**

*Hint: Think about how many  $\frac{1}{3}$  cups fit into  $\frac{2}{3}$  cups.*

- A) 1 time
- B) 2 times ✓
- C) 3 times
- D) 4 times

**You need to fill the  $\frac{1}{3}$  cup measuring cup 2 times to get  $\frac{2}{3}$  cup of sugar.**

**You have a recipe that requires  $\frac{2}{3}$  cup of sugar. If you only have a  $\frac{1}{3}$  cup measuring cup, how many times do you need to fill it to get the equivalent amount?**

*Hint: Think about how many  $\frac{1}{3}$  cups make up  $\frac{2}{3}$  cup.*

- A) 1 time
- B) 2 times ✓
- C) 3 times
- D) 4 times

You need to fill the  $\frac{1}{3}$  cup 2 times to get  $\frac{2}{3}$  cup of sugar.

**If you multiply the numerator and denominator of  $\frac{5}{6}$  by 2, which of the following fractions do you get? (Select all that apply)**

*Hint: Consider the result of multiplying both parts of the fraction.*

- A)  $\frac{10}{12}$  ✓
- B)  $\frac{5}{6}$
- C)  $\frac{20}{24}$  ✓
- D)  $\frac{15}{18}$

Multiplying both the numerator and denominator of  $\frac{5}{6}$  by 2 gives you  $\frac{10}{12}$  and  $\frac{20}{24}$ .

**If you multiply the numerator and denominator of  $\frac{5}{6}$  by 2, which of the following fractions do you get? (Select all that apply)**

*Hint: Consider the effect of multiplying both parts of the fraction.*

- A)  $\frac{10}{12}$  ✓
- B)  $\frac{5}{6}$
- C)  $\frac{20}{24}$  ✓
- D)  $\frac{15}{18}$  ✓

Multiplying both the numerator and denominator of  $\frac{5}{6}$  by 2 gives you  $\frac{10}{12}$ ,  $\frac{20}{24}$ , and  $\frac{15}{18}$ .

**If you multiply the numerator and denominator of  $\frac{5}{6}$  by 2, which of the following fractions do you get? (Select all that apply)**

*Hint: Consider the effect of multiplying both parts of the fraction.*

- A)  $\frac{10}{12}$  ✓
- B)  $\frac{5}{6}$
- C)  $\frac{20}{24}$  ✓
- D)  $\frac{15}{18}$

Multiplying both the numerator and denominator of  $\frac{5}{6}$  by 2 gives you  $\frac{10}{12}$  and  $\frac{20}{24}$ .

**Create an equivalent fraction for  $\frac{7}{9}$  by multiplying both the numerator and denominator by the same number. Explain your steps.**

*Hint: Choose a number to multiply both parts of the fraction.*



**To create an equivalent fraction for  $\frac{7}{9}$ , you can multiply both the numerator and denominator by any non-zero number, such as 2, resulting in  $\frac{14}{18}$ .**

**Create an equivalent fraction for  $\frac{7}{9}$  by multiplying both the numerator and denominator by the same number. Explain your steps.**

*Hint: Think about what number you want to multiply by.*

**To create an equivalent fraction for  $\frac{7}{9}$ , you can multiply both by 2 to get  $\frac{14}{18}$ , for example.**

**Create an equivalent fraction for  $\frac{7}{9}$  by multiplying both the numerator and denominator by the same number. Explain your steps.**

*Hint: Think about what number you can multiply by.*

**To create an equivalent fraction for  $\frac{7}{9}$ , you can multiply both by 2 to get  $\frac{14}{18}$ , for example.**

### Part 3: Analysis, Evaluation, and Creation

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**Which fraction is not equivalent to  $\frac{1}{2}$ ?**

Hint: Consider the relationship between the numerators and denominators.

- A)  $\frac{2}{4}$
- B)  $\frac{3}{6}$
- C)  $\frac{4}{8}$
- D)  $\frac{5}{10}$  ✓

■ The fraction that is not equivalent to  $\frac{1}{2}$  is  $\frac{5}{10}$ .

**Which fraction is not equivalent to  $\frac{1}{2}$ ?**

Hint: Consider the relationships between the fractions.

- A)  $\frac{2}{4}$  ✓
- B)  $\frac{3}{6}$
- C)  $\frac{4}{8}$
- D)  $\frac{5}{10}$

■ The fraction  $\frac{5}{10}$  is equivalent to  $\frac{1}{2}$ , while the others are.

**Which fraction is not equivalent to  $\frac{1}{2}$ ?**

Hint: Think about the relationships between the fractions.

- A)  $\frac{2}{4}$
- B)  $\frac{3}{6}$
- C)  $\frac{4}{8}$
- D)  $\frac{5}{10}$  ✓

■ The fraction that is not equivalent to  $\frac{1}{2}$  is  $\frac{5}{10}$ .

**Analyze the fractions below and select those that are equivalent to  $\frac{2}{5}$ . (Select all that apply)**

Hint: Think about the relationships between the fractions.

- A)  $\frac{4}{10}$  ✓
- B)  $\frac{6}{15}$  ✓
- C)  $\frac{8}{20}$  ✓
- D)  $\frac{10}{25}$  ✓

Fractions equivalent to  $\frac{2}{5}$  include  $\frac{4}{10}$ ,  $\frac{6}{15}$ ,  $\frac{8}{20}$ , and  $\frac{10}{25}$ .

Analyze the fractions below and select those that are equivalent to  $\frac{2}{5}$ . (Select all that apply)

Hint: Think about the relationship between the numerators and denominators.

- A)  $\frac{4}{10}$  ✓
- B)  $\frac{6}{15}$  ✓
- C)  $\frac{8}{20}$  ✓
- D)  $\frac{10}{25}$  ✓

The fractions equivalent to  $\frac{2}{5}$  are  $\frac{4}{10}$ ,  $\frac{6}{15}$ ,  $\frac{8}{20}$ , and  $\frac{10}{25}$ .

Analyze the fractions below and select those that are equivalent to  $\frac{2}{5}$ . (Select all that apply)

Hint: Consider the relationships between the fractions.

- A)  $\frac{4}{10}$  ✓
- B)  $\frac{6}{15}$  ✓
- C)  $\frac{8}{20}$  ✓
- D)  $\frac{10}{25}$  ✓

Fractions equivalent to  $\frac{2}{5}$  include  $\frac{4}{10}$ ,  $\frac{6}{15}$ ,  $\frac{8}{20}$ , and  $\frac{10}{25}$ .

Analyze the fractions  $\frac{9}{12}$  and  $\frac{3}{4}$ . Are they equivalent? Justify your answer using mathematical reasoning.

Hint: Think about simplifying both fractions.

$\frac{9}{12}$  simplifies to  $\frac{3}{4}$ , so they are equivalent.

Analyze the fractions  $\frac{9}{12}$  and  $\frac{3}{4}$ . Are they equivalent? Justify your answer using mathematical reasoning.

Hint: Consider simplifying both fractions.

Yes,  $9/12$  and  $3/4$  are equivalent because when you simplify  $9/12$ , you get  $3/4$ .

Analyze the fractions  $9/12$  and  $3/4$ . Are they equivalent? Justify your answer using mathematical reasoning.

Hint: Think about simplifying both fractions.

$9/12$  and  $3/4$  are equivalent because both simplify to  $3/4$ .

You are tasked with creating a visual model to represent the fraction  $3/5$ . Which of the following could be part of your model? (Select all that apply)

Hint: Think about different ways to visually represent fractions.

- A) A pie chart divided into 5 equal parts with 3 shaded ✓
- B) A number line with a point at 0.6 ✓
- C) A bar divided into 10 equal parts with 6 shaded ✓
- D) A set of 5 objects with 3 highlighted ✓

Visual models for  $3/5$  could include a pie chart, a number line, or a bar graph.

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- D) A set of 5 objects with 3 highlighted ✓

A pie chart divided into 5 equal parts with 3 shaded, a number line with a point at 0.6, and a set of 5 objects with 3 highlighted could all represent  $\frac{3}{5}$ .

**You are tasked with creating a visual model to represent the fraction  $\frac{3}{5}$ . Which of the following could be part of your model? (Select all that apply)**

*Hint: Think about different ways to visually represent fractions.*

- A) A pie chart divided into 5 equal parts with 3 shaded ✓
- B) A number line with a point at 0.6 ✓
- C) A bar divided into 10 equal parts with 6 shaded ✓
- D) A set of 5 objects with 3 highlighted ✓

Visual models for  $\frac{3}{5}$  could include a pie chart, a number line, or a bar graph.

**Create a real-world scenario where understanding equivalent fractions would be necessary. Describe the scenario and explain how equivalent fractions would be used.**

*Hint: Think about situations involving sharing or dividing.*

A scenario could involve sharing a pizza among friends, where equivalent fractions help determine how much each person gets.

**Create a real-world scenario where understanding equivalent fractions would be necessary. Describe the scenario and explain how equivalent fractions would be used.**

*Hint: Think about situations in cooking, measuring, or sharing.*

**A real-world scenario could involve adjusting a recipe or dividing a pizza into equal parts.**

**Create a real-world scenario where understanding equivalent fractions would be necessary. Describe the scenario and explain how equivalent fractions would be used.**

*Hint: Think about situations involving sharing or dividing.*

**A real-world scenario could involve cooking, where you need to adjust ingredient amounts based on serving sizes, using equivalent fractions to ensure the correct proportions.**