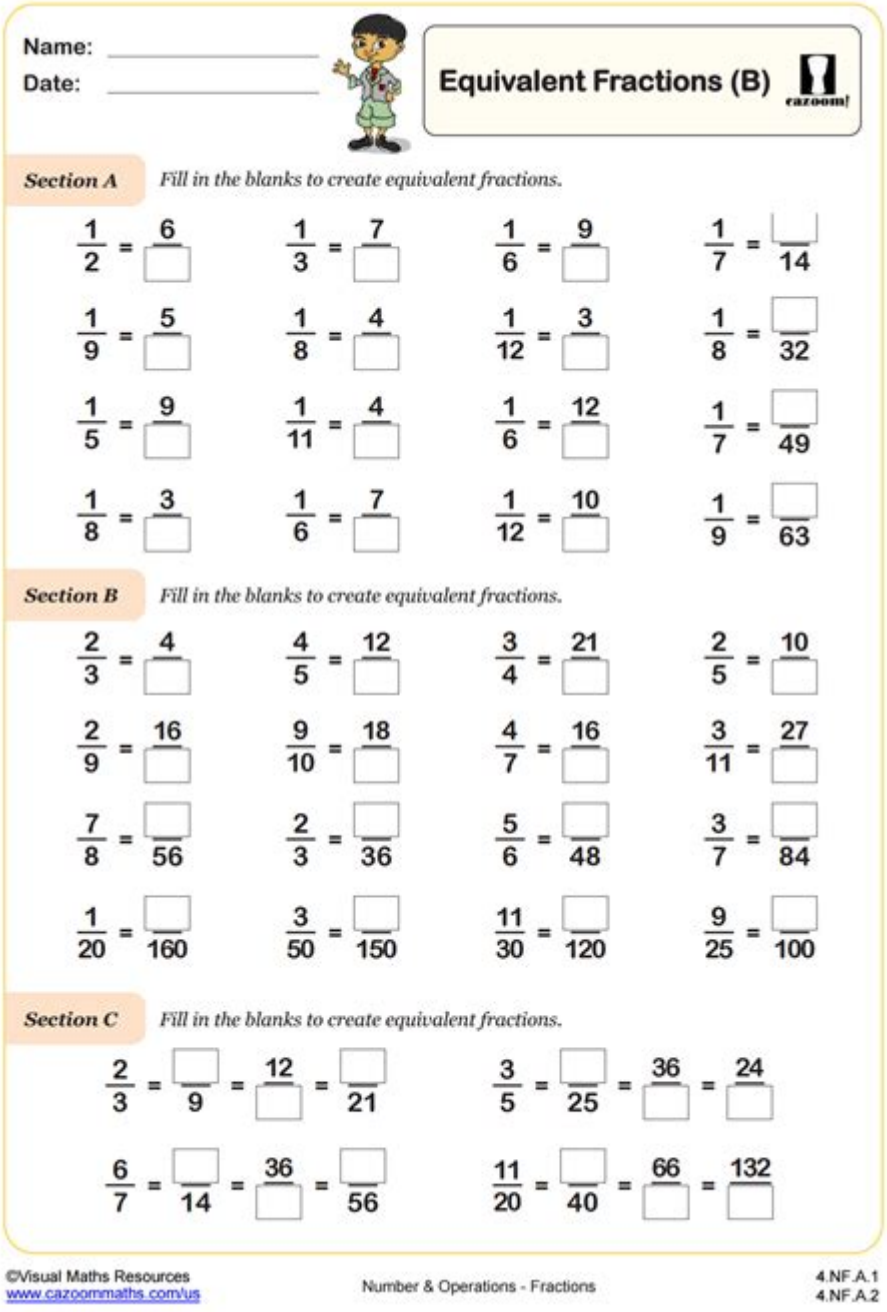
Lesson Practice B Equivalent Fractions And Mixed Numbers


Name: _____
Date: _____

Equivalent Fractions (B)

Section A *Fill in the blanks to create equivalent fractions.*

$\frac{1}{2} = \frac{6}{\square}$ $\frac{1}{3} = \frac{7}{\square}$ $\frac{1}{6} = \frac{9}{\square}$ $\frac{1}{7} = \frac{\square}{14}$

$\frac{1}{9} = \frac{5}{\square}$ $\frac{1}{8} = \frac{4}{\square}$ $\frac{1}{12} = \frac{3}{\square}$ $\frac{1}{8} = \frac{\square}{32}$

$\frac{1}{5} = \frac{9}{\square}$ $\frac{1}{11} = \frac{4}{\square}$ $\frac{1}{6} = \frac{12}{\square}$ $\frac{1}{7} = \frac{\square}{49}$

$\frac{1}{8} = \frac{3}{\square}$ $\frac{1}{6} = \frac{7}{\square}$ $\frac{1}{12} = \frac{10}{\square}$ $\frac{1}{9} = \frac{\square}{63}$

Section B *Fill in the blanks to create equivalent fractions.*

$\frac{2}{3} = \frac{4}{\square}$ $\frac{4}{5} = \frac{12}{\square}$ $\frac{3}{4} = \frac{21}{\square}$ $\frac{2}{5} = \frac{10}{\square}$

$\frac{2}{9} = \frac{16}{\square}$ $\frac{9}{10} = \frac{18}{\square}$ $\frac{4}{7} = \frac{16}{\square}$ $\frac{3}{11} = \frac{27}{\square}$

$\frac{7}{8} = \frac{\square}{56}$ $\frac{2}{3} = \frac{\square}{36}$ $\frac{5}{6} = \frac{\square}{48}$ $\frac{3}{7} = \frac{\square}{84}$

$\frac{1}{20} = \frac{\square}{160}$ $\frac{3}{50} = \frac{\square}{150}$ $\frac{11}{30} = \frac{\square}{120}$ $\frac{9}{25} = \frac{\square}{100}$

Section C *Fill in the blanks to create equivalent fractions.*

$\frac{2}{3} = \frac{\square}{9} = \frac{12}{\square} = \frac{\square}{21}$ $\frac{3}{5} = \frac{\square}{25} = \frac{36}{\square} = \frac{24}{\square}$

$\frac{6}{7} = \frac{\square}{14} = \frac{36}{\square} = \frac{\square}{56}$ $\frac{11}{20} = \frac{\square}{40} = \frac{66}{\square} = \frac{132}{\square}$

©Visual Maths Resources
www.cazoommaths.com/us

Number & Operations - Fractions

4.NF.A.1
4.NF.A.2

Lesson Practice B: Equivalent Fractions and Mixed Numbers

Understanding equivalent fractions and mixed numbers is an essential part of mastering basic arithmetic and fraction operations. This lesson aims to provide comprehensive insights into these concepts, ensuring that students can identify, create, and utilize equivalent fractions and mixed numbers effectively. Through practical exercises, we will explore the definitions, methods for finding equivalents, and the connections between fractions and whole numbers.

Understanding Fractions

Fractions represent a part of a whole and are expressed as a ratio of two integers. The number above the line is the numerator, while the number below the line is the denominator. For example, in the fraction $\frac{3}{4}$, 3 is the numerator, and 4 is the denominator.

Types of Fractions

1. Proper Fractions: These are fractions where the numerator is less than the denominator (e.g., $\frac{2}{5}$).
2. Improper Fractions: Fractions where the numerator is greater than or equal to the denominator (e.g., $\frac{5}{4}$).
3. Mixed Numbers: These consist of a whole number and a proper fraction (e.g., $1 \frac{1}{4}$).
4. Equivalent Fractions: Different fractions that represent the same value (e.g., $\frac{1}{2}$ and $\frac{2}{4}$).

Equivalent Fractions

Equivalent fractions arise when two or more fractions represent the same quantity. Understanding how to create and identify equivalent fractions is crucial for performing operations with fractions.

Finding Equivalent Fractions

To find equivalent fractions, you can use two primary methods:

1. Multiplication: Multiply both the numerator and the denominator of the fraction by the same non-zero integer.
- Example: $\frac{1}{3}$
- Multiply by 2: $\frac{1 \times 2}{3 \times 2} = \frac{2}{6}$
- Multiply by 3: $\frac{1 \times 3}{3 \times 3} = \frac{3}{9}$

2. Division: Divide both the numerator and the denominator by the same non-zero integer.
- Example: $\frac{4}{8}$
- Divide by 4: $\frac{4 \div 4}{8 \div 4} = \frac{1}{2}$

Visual Representation

Visual aids can also be helpful in understanding equivalent fractions. By dividing a shape (like a pie or a rectangle) into equal parts, students can visually see how different fractions can represent the same portion of the whole.

Practice Problems

1. Find two equivalent fractions for $\frac{2}{5}$.
2. Determine if $\frac{6}{9}$ is equivalent to $\frac{2}{3}$.
3. Create three equivalent fractions for $\frac{3}{7}$.

Answers:
1. $\frac{4}{10}, \frac{6}{15}$
2. Yes, $\frac{6 \div 3}{9 \div 3} = \frac{2}{3}$
3. $\frac{6}{14}, \frac{9}{21}, \frac{12}{28}$

Mixed Numbers

Mixed numbers combine whole numbers and fractions, which can sometimes complicate arithmetic operations. Understanding how to convert between mixed numbers and improper fractions is key to solving problems involving both forms.

Converting Improper Fractions to Mixed Numbers

To convert an improper fraction to a mixed number:

1. Divide the numerator by the denominator.
2. The quotient becomes the whole number part.
3. The remainder becomes the numerator of the fraction part, with the original denominator remaining the same.

Example

Convert $\frac{9}{4}$ to a mixed number:

1. $9 \div 4 = 2$ remainder 1
2. So, $\frac{9}{4} = 2\frac{1}{4}$

Converting Mixed Numbers to Improper Fractions

To convert a mixed number back to an improper fraction:

1. Multiply the whole number by the denominator.
2. Add the numerator to this product.
3. Place this result over the original denominator.

Example

Convert $3\frac{2}{5}$ to an improper fraction:

1. $3 \times 5 = 15$
2. $15 + 2 = 17$
3. So, $3\frac{2}{5} = \frac{17}{5}$

Practice Problems

1. Convert $\frac{11}{3}$ to a mixed number.
2. Convert $4\frac{3}{8}$ to an improper fraction.
3. Identify the mixed number equivalent of $\frac{22}{5}$.

Answers:
1. $3\frac{2}{3}$
2. $\frac{35}{8}$
3. $4\frac{2}{5}$

Application of Equivalent Fractions and Mixed Numbers

Understanding equivalent fractions and mixed numbers is essential in various real-life contexts, including cooking, budgeting, and construction, where precise measurements are crucial.

Real-World Examples

1. Cooking: Recipes often require fractional measurements, and understanding equivalents helps in adjusting

serving sizes.
2. Construction: Measurements for materials often use fractions; knowing how to convert and compare these fractions ensures accuracy.
3. Budgeting: In finance, understanding percentages as fractions can help in better money management.

Strategies for Mastery

1. Practice Regularly: Consistent practice with both equivalent fractions and mixed numbers will reinforce understanding.
2. Use Visuals: Drawing or using fraction strips can help visualize equivalent fractions.
3. Engage in Group Activities: Working with peers can facilitate collaborative learning and problem-solving.

Conclusion

In conclusion, mastering equivalent fractions and mixed numbers is vital for students to build a strong foundation in mathematics. Through understanding the principles of equivalence, conversion, and application, learners can enhance their mathematical skills and gain confidence in handling fractions in daily life and academic settings. Regular practice, the use of visual aids, and real-world applications will solidify these concepts, making them readily applicable in various situations.

Frequently Asked Questions

What are equivalent fractions and how can they be identified?

Equivalent fractions are different fractions that represent the same value or proportion of a whole. They can be identified by multiplying or dividing the numerator and denominator of a fraction by the same non-zero number.

How do you convert a mixed number into an improper fraction?

To convert a mixed number into an improper fraction, multiply the whole number by the denominator, add the numerator, and place the result over the original denominator. For example, for the mixed number 3 1/4, it becomes (3*4 + 1)/4 = 13/4.

Can you give an example of two equivalent fractions?

Yes! The fractions 1/2 and 2/4 are equivalent because they represent the same portion of a whole; if you multiply 1 by 2 and 2 by 2, you get 2/4.

What is the significance of learning about equivalent fractions in mathematics?

Understanding equivalent fractions is crucial because it helps in simplifying fractions, performing operations with fractions, and comparing different fractions, which are foundational skills in mathematics.

How can visual aids help in teaching equivalent fractions and mixed numbers?

Visual aids like fraction bars, pie charts, or number lines can help students grasp the concept of equivalent fractions and mixed numbers by providing a tangible representation of how different fractions can represent the same quantity.

What strategies can be used to practice identifying equivalent fractions?

Strategies include using fraction strips, creating a fraction equivalency chart, engaging in games that involve

MATCHING FRACTIONS, AND SOLVING REAL-LIFE PROBLEMS THAT REQUIRE IDENTIFYING OR CREATING EQUIVALENT FRACTIONS.

Find other PDF article:
https://soc.up.edu.ph/24-mark/pdf?docid=SYx42-6789&title=ge-72-cu-ft-electric-dryer-manual.pdf

Lesson Practice B Equivalent Fractions And Mixed Numbers

如何看待杰洛•齐贝林的五个**lesson?**又该如何做到? **-** 知乎

除非你有确凿的证据 lesson four尊敬你做的事，不要去在意结果果断放弃结果才有资格完成你的目标 lesson five 最远的路就是最近的路，不要抄近道老老实实练。本人对这五个lesson省油感 …

新概念英语第二册**Lesson 60**深精讲解 **-** 知乎

本号长期分析讲解新概念英语，新概念英语第二册里面的每个句子，句子结构，背后语法，上下文用法，今天，我们逐词逐句讲解新概念英语第二册Lesson 60，目的是带领大家背诵下来，但 …

course、class、lesson和**subject**译为“课”时有什么区别? **-** 知乎

Nov 19, 2021 · 泛读与词汇 英语学习方法与内容分享 6 人赞同了该回答 course是课程，针对某个主题讲授一系列的内容 class是强调课堂的形式 lesson是课本上一个单位的内容 subject是主题或 …

儿子五年级了，想揍一顿屁股，该怎么揍? **-** 知乎

1、告诉他因为什么事，所以要打他屁股。2、可以给他3~5分钟准备时间。3、准备时间到了之后，让他脱掉裤子还有nk，露出屁股，让他趴到你的腿上或者沙发上。建议选择一个工具，个人 …

如何解读杰洛说的「最短的捷径就是绕远路」? - 知乎

Apr 9, 2017 · 天下的事,有时是不以人的意志为转移的 你想这样作,却偏偏一下子办不到 但转了一个圈，事情又办成了 ---李德胜 (1935年5月完成巧渡金沙江后在会理的讲话) 最近看了B站UP 沙 …

新概念英语第二册**Lesson 38**深精讲解 **-** 知乎

本号长期分析讲解新概念英语，新概念英语第二册里面的每个句子，句子结构，背后语法，上下文用法，今天，我们逐词逐句讲解新概念英语第二册Lesson 38，目的是带领大家背诵下来，但 …

lesson与subject的区别? - 知乎

谢邀 lesson 课 如 piano lessons, the second lesson (这里跟class差不多)；课 (就是几节课) 如 30 lessons, a lesson;经验 教训 如give sb. a lesson (第二个意思也可以这么用 意为给某人 …

新概念英语第二册**Lesson 29**深精讲解与背诵指导 **-** 知乎

本号长期分析讲解新概念英语，新概念英语第二册里面的每个句子，句子结构，背后语法，上下文用法，今天，我们逐词逐句讲解新概念英语第二册Lesson 29，目的是带领大家背诵下来，但 …

中国人学韩语有多简单?！最好的韩语入门教程！不要再走弯路了~

May 5, 2022 · 中国人学韩语有多简单?！最好的韩语入门教程！不要再走弯路了~ 栗子奶糕 因为天气好，因为天气不好，因为天气刚刚好 11 46 作为一个五个月过TOPIK6、韩语N年学者，为 …

新概念英语第二册*Lesson 27*深精讲解与背诵指导 - 知乎

本号长期分析讲解新概念英语，新概念英语第二册里面的每个句子，句子结构，背后语法，上下文用法，今天，我们逐词逐句讲解新概念英语第二册Lesson 27，目的是带领大家背诵下来，但 …

如何看待杰洛·齐贝林的五个lesson?又该如何做到? - 知乎

除非你有确凿的证据 lesson four尊敬你做的事，不要去在意结果果断放弃结果才有资格完成你的目标 lesson five 最远的路就是最 …

新概念英语第二册*Lesson 60*深精讲解 - 知乎

本号长期分析讲解新概念英语，新概念英语第二册里面的每个句子，句子结构，背后语法，上下文用法，今天，我们逐词逐句讲解 …

course、class、lesson和subject译为“课”时有什么区别…

Nov 19, 2021 · 泛读与词汇 英语学习方法与内容分享 6 人赞同了该回答 course是课程，针对某个主题讲授一系列的内容 class是强 …

儿子五年级了，想揍一顿屁股，该怎么揍? - 知乎

1、告诉他因为什么事，所以要打他屁股。 2、可以给他3~5分钟准备时间。 3、准备时间到了之后，让他脱掉裤子还有nk，露出屁 …

如何解读杰洛说的「最短的捷径就是绕远路」? - 知乎

Apr 9, 2017 · 天下的事,有时是不以人的意志为转移的 你想这样作,却偏偏一下子办不到 但转了一个圈，事情又办成了 ---李德胜 (1935 …

Master equivalent fractions and mixed numbers with our comprehensive lesson practice B. Enhance your skills today! Learn more for effective strategies and tips.

Back to Home