ALBERT

Name _____ Date _____

Dividing Unit Fractions by Whole Numbers Worksheet

Grade 5 · Common Core 5.NF.B.7a

> Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.

Practice

Builds the skill step by step.

1. $\frac{1}{2} \div 2 = ?$

2. $\frac{1}{3} \div 2 = ?$

3. $\frac{1}{4} \div 3 = ?$

4. Which multiplication fact checks that $\frac{1}{5} \div 2 = \frac{1}{10}$?

   A. $\frac{1}{5} \times 2 = \frac{2}{5}$

   B. $\frac{1}{10} \times \frac{1}{5} = \frac{1}{50}$

   C. $2 \times 5 = 10$

   D. $\frac{1}{10} \times 2 = \frac{1}{5}$

5. $\frac{1}{6} \div 2 = ?$

6. $\frac{1}{2} \div 5 = ?$

7. The bar is split into thirds, and one third is shaded. The shaded third is then split into 4 equal parts. What fraction of the whole bar is one of those small parts?



8. $\frac{1}{8} \div 2 = ?$

9. $\frac{1}{2}$ of a pie is shared equally by 3 friends. What fraction of the whole pie does each friend get?

10. $\frac{1}{3} \div 3 = ?$

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On Level

Grade-level practice.

1. $\frac{1}{5} \div 4 = ?$

2. $\frac{1}{7} \div 2 = ?$

3. Which is equal to $\frac{1}{4} \div 5$?

   A. $\frac{1}{20}$

   B. $\frac{5}{4}$

   C. $\frac{1}{9}$

   D. $\frac{4}{5}$

4. $\frac{1}{3} \div 6 = ?$

5. Which story matches $\frac{1}{3} \div 2$?

   A. There is $\frac{1}{3}$ of a cake, and someone brings the same amount again. How much cake is there?

   B. 2 cakes are each cut into thirds. How many pieces are there?

   C. $\frac{1}{3}$ of a cake is shared equally by 2 people. How much of the whole cake does each person get?

   D. 2 people each eat $\frac{1}{3}$ of a cake. How much do they eat in all?

6. $\frac{1}{10} \div 2 = ?$

7. $\frac{1}{6} \div 4 = ?$

8. $\frac{1}{9} \div 3 = ?$

9. How does $\frac{1}{4} \div 2$ compare to $\frac{1}{4}$?

   A. It is less than $\frac{1}{4}$.

   B. It is equal to $\frac{1}{4}$.

   C. It is greater than $\frac{1}{4}$.

   D. It is twice $\frac{1}{4}$.

10. $\frac{1}{12} \div 2 = ?$

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Challenge

Multi-step and word problems that stretch it.

1. $\frac{1}{2} \div 4 \div 2 = ?$ Work from left to right.

2. A unit fraction divided by 3 equals $\frac{1}{15}$. What is the unit fraction?

3. $\frac{1}{3}$ divided by what whole number equals $\frac{1}{21}$?

4. Omar says $\frac{1}{4} \div 2 = \frac{2}{4} = \frac{1}{2}$. Find the correct quotient.

5. Which expression has the greatest value?

   A. $\frac{1}{2} \div 3$

   B. $\frac{1}{3} \div 2$

   C. $\frac{1}{4} \div 4$

   D. $\frac{1}{2} \div 2$

6. Divide $\frac{1}{5}$ by 3. Then multiply the quotient by 3. What number do you get?

7. Which pair of expressions are equal to each other?

   A. $\frac{1}{2} \div 4$ and $\frac{1}{4} \div 2$

   B. $\frac{1}{2} \div 4$ and $\frac{1}{2} \times 4$

   C. $\frac{1}{3} \div 3$ and $\frac{1}{6}$

   D. $\frac{1}{4} \div 4$ and 1

8. $\frac{1}{6} \div 5 = ?$

9. How many times as great is $\frac{1}{2} \div 2$ as $\frac{1}{2} \div 8$?

10. $\frac{1}{8} \div 4 = ?$