

Grade 5 · Dividing Unit Fractions and Whole Numbers · Worksheet

Common Core 5.NF.B.7 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

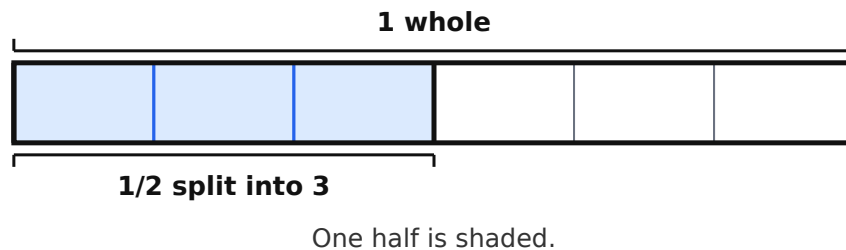
These 22 problems practice Common Core 5.NF.B.7: dividing a unit fraction by a non-zero whole number and a whole number by a unit fraction. Use bar models and number lines, write division equations, and check with multiplication.

Start with the pictures, then move to equations and missing numbers. The last six problems are word problems. Write every answer in simplest form.

Grade 5 Common Core: 5.NF.B.7

Problem 1: Half split in three

Find $\frac{1}{2} \div 3$. The bar shows one whole cut into 6 equal parts, with one half shaded.



Problem 2: Fourths split in two

Find $\frac{1}{4} \div 2$.

Problem 3: Fifths split in three

Find $\frac{1}{5} \div 3$.

Problem 4: More unit fraction quotients

Find each quotient.

- a. $\frac{1}{6} \div 4$
- b. $\frac{1}{8} \div 2$

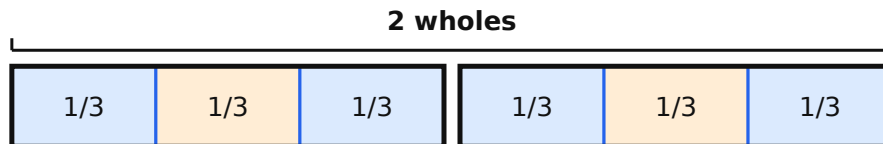
c. $\frac{1}{10} \div 5$

Problem 5: Check by multiplying

Maya says $\frac{1}{4} \div 3 = \frac{1}{12}$. Write a multiplication equation that checks her answer, and tell whether she is right.

Problem 6: Wholes and thirds

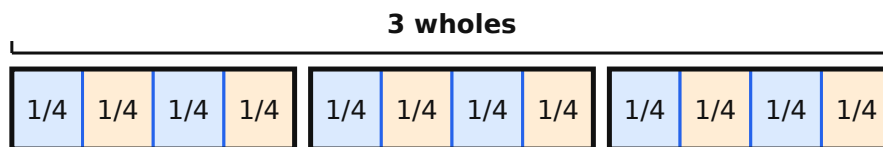
Two wholes are cut into thirds. Find $2 \div \frac{1}{3}$.



Two wholes cut into thirds.

Problem 7: Wholes and fourths

Find $3 \div \frac{1}{4}$ using the model.



Three wholes cut into fourths.

Problem 8: Dividing by one half

Find each quotient.

- a. $5 \div \frac{1}{2}$
- b. $7 \div \frac{1}{2}$

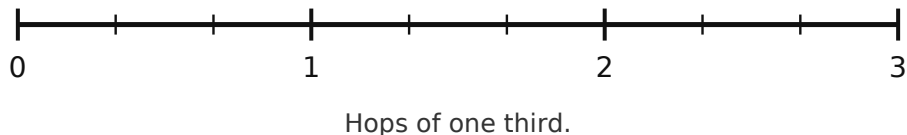
Problem 9: Whole numbers by unit fractions

Find each quotient.

- a. $6 \div \frac{1}{5}$
- b. $9 \div \frac{1}{3}$
- c. $8 \div \frac{1}{10}$

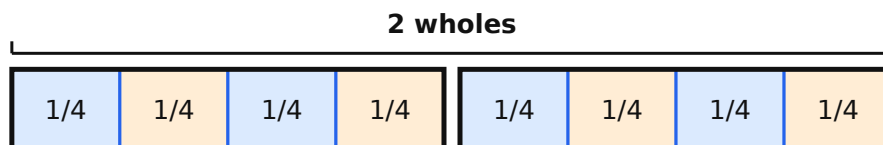
Problem 10: Hops on a number line

How many hops of $\frac{1}{3}$ fit between 0 and 3? Write the division equation.



Problem 11: Write the division equation

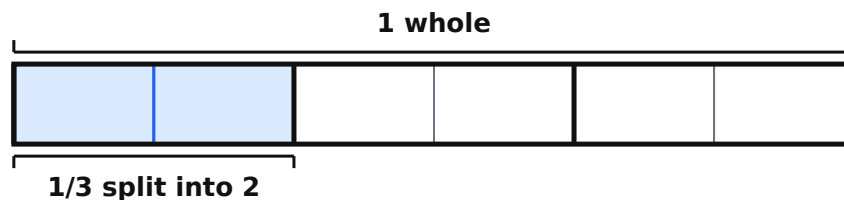
Write a division equation for the picture and solve it.



Two wholes cut into equal parts.

Problem 12: Name the unit fraction

The bar shows one whole cut into 6 equal parts, with a third shaded and split into 2 pieces. Write a division equation for the shaded third and solve it.



One third split in two.

Problem 13: Missing divisor, unit fractions

Find each missing number.

- a. $\frac{1}{5} \div [\text{?}][\text{?}][\text{?}] = \frac{1}{20}$
b. $\frac{1}{3} \div [\text{?}][\text{?}][\text{?}] = \frac{1}{18}$

Problem 14: Missing number, whole numbers

Find each missing number.

a. $6 \div [\text{?}] [\text{?}] [\text{?}] = 24$

b. $[\text{?}] [\text{?}] [\text{?}] \div \frac{1}{5} = 35$

Problem 15: Compare two quotients

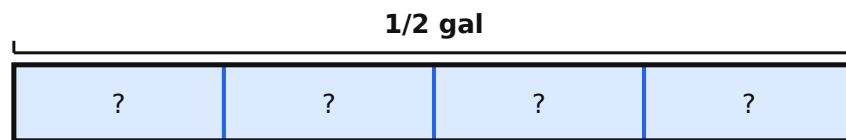
Which is greater, $\frac{1}{2} \div 4$ or $4 \div \frac{1}{2}$? Find both quotients.

Problem 16: Pattern with fourths

Find $1 \div \frac{1}{4}$, $2 \div \frac{1}{4}$, $3 \div \frac{1}{4}$ and $4 \div \frac{1}{4}$. Describe the pattern.

Problem 17: Lemonade jugs

Maya has $\frac{1}{2}$ gallon of lemonade. She pours it equally into 4 jugs. How much lemonade is in each jug?



One half gallon in 4 equal jugs.

Problem 18: Leftover pizza

One third of a pizza is left. Jamal and Sofia share it equally. What fraction of the whole pizza does each get?

Problem 19: Ribbon bows

Priya has 3 yards of ribbon. She cuts it into pieces that are $\frac{1}{4}$ yard long. How many pieces does she cut?

Problem 20: Rice servings

Diego has 6 cups of rice. Each serving is $\frac{1}{3}$ cup. How many servings can he make?

Problem 21: Chocolate bar

A chocolate bar weighs $\frac{1}{4}$ pound. Aisha splits it equally among 5 friends. How many pounds does each friend get?

Problem 22: Birdseed

Ethan has 3 pounds of birdseed. He fills feeders that each hold $\frac{1}{2}$ pound. He then splits $\frac{1}{4}$ pound of sunflower seeds equally among all the feeders. How many pounds of sunflower seeds go into each feeder?