

Grade 5 - Dividing Unit Fractions and Whole Numbers - Test

Common Core 5.NF.B.7a, 5.NF.B.7b, 5.NF.B.7c · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test covers dividing unit fractions by whole numbers and whole numbers by unit fractions (5.NF.B.7). There are 9 questions worth 20 points in all. Show your work, include units in word problems, and check your answers.

About this test

- Grade: Grade 5
- Chapter: Dividing Unit Fractions and Whole Numbers
- Standards: 5.NF.B.7a, 5.NF.B.7b, 5.NF.B.7c
- Time: 45 minutes
- Total: 20 points

Question 1 - Unit fractions divided by whole numbers [2 pts]

Answer each part.

- a. $\frac{1}{3} \div 2$ (1 point)
b. $\frac{1}{5} \div 3$ (1 point)

Question 2 - Whole numbers divided by unit fractions [2 pts]

Answer each part.

- a. $4 \div \frac{1}{3}$ (1 point)
b. $7 \div \frac{1}{2}$ (1 point)

Question 3 - Read the model [2 pts]

Solve. The model shows one half of a bar cut into equal pieces. Write a division equation for the model and find the quotient.

One whole cut into 2 equal parts



$\frac{1}{2}$

Cut that part into 4 equal pieces



A bar and its first half.

Question 4 - Compare two quotients [2 pts]

Solve. Which is greater, $6 \div \frac{1}{4}$ or $6 \div \frac{1}{3}$? Show the value of each.

Question 5 - Missing dividend [2 pts]

Find the number that makes the equation true: $? \div 3 = \frac{1}{15}$. Show how you know.

Question 6 - Number line jumps [2 pts]

Solve. The number line shows jumps of equal size from 0 to 3. Write a division equation and find the quotient.

Each jump is $\frac{1}{2}$



Equal jumps from 0 to 3.

Question 7 - Slices of cheese [2 pts]

Solve. Liam has $\frac{1}{4}$ pound of cheese. He cuts it into 3 equal slices. How much does each slice weigh?

One whole cut into 4 equal parts



1/4

Cut that part into 3 equal pieces



One fourth pound of cheese cut into slices.

Question 8 - Servings of rice [3 pts]

Solve. Aisha has 5 cups of rice. Each serving is $\frac{1}{3}$ cup.

- How many servings can she make? (1 point)
- Her family eats 6 servings. How many servings are left? (1 point)
- How many cups of rice are left? (1 point)

Question 9 - Juice bottles [3 pts]

Solve. Mei has $\frac{1}{2}$ gallon of juice. A cooler holds 2 gallons of water.

- Mei pours the juice equally into 4 bottles. How much juice is in each bottle? (1 point)
- Noah fills $\frac{1}{8}$ -gallon bottles from the cooler. How many bottles can he fill? (1 point)
- Explain why the answer to part (a) is less than $\frac{1}{2}$ but the answer to part (b) is greater than 2. (1 point)