

# Dividing Decimals by Decimals

Grade 5 Math • Section 7.5

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 17

## Quick Review and Helpful Hints

**Steps:** (1) Move the decimal in the **divisor** to make it a whole number. (2) Move the decimal in the **dividend** the same number of places. (3) Divide normally.

**Lightbulb:**  $6.3 \div 0.9$ : move both decimals 1 place right  $\rightarrow 63 \div 9 = 7$ .

**Warning:** You must move the decimal the **same** number of places in both the divisor and the dividend.

**Example:** Find  $3.78 \div 0.6$ .

**Steps:** Move the decimal 1 place right in both:  $37.8 \div 6 = 6.3$ .

**Answer:** 6.3

## Practice Problems

Divide.

- |                            |                              |                              |
|----------------------------|------------------------------|------------------------------|
| 1. $4.5 \div 0.9 =$ _____  | 6. $12.6 \div 0.06 =$ _____  | 11. $15.5 \div 0.5 =$ _____  |
| 2. $7.2 \div 0.8 =$ _____  | 7. $0.48 \div 0.4 =$ _____   | 12. $2.88 \div 0.12 =$ _____ |
| 3. $3.6 \div 0.12 =$ _____ | 8. $9.36 \div 1.2 =$ _____   | 13. $4.86 \div 0.6 =$ _____  |
| 4. $8.1 \div 0.3 =$ _____  | 9. $6.25 \div 0.25 =$ _____  | 14. $10.5 \div 0.35 =$ _____ |
| 5. $5.04 \div 0.7 =$ _____ | 10. $0.72 \div 0.08 =$ _____ | 15. $0.96 \div 0.04 =$ _____ |

## Word Problems

16. A piece of wire is 8.4 meters long. It is cut into pieces each 0.6 meters long. How many pieces are there? \_\_\_\_\_

17. A car travels 14.4 miles using 0.8 gallons of gas. How many miles per gallon does it get? \_\_\_\_\_



## Answer Keys

- |        |         |
|--------|---------|
| 1. 5   | 10. 9   |
| 2. 9   | 11. 31  |
| 3. 30  | 12. 24  |
| 4. 27  | 13. 8.1 |
| 5. 7.2 | 14. 30  |
| 6. 210 | 15. 24  |
| 7. 1.2 | 16. 14  |
| 8. 7.8 | 17. 18  |
| 9. 25  |         |

### Step-by-Step Explanations

- Start with the main idea. For dividing decimals by decimals, line up the decimal values and compute  $4.5 \div 0.9 = 5$ . Write the given information first, then choose the operation that matches the situation.
- Keep the work tidy. For dividing decimals by decimals, line up the decimal values and compute  $7.2 \div 0.8 = 9$ . A quick estimate helps confirm that the final answer is reasonable.
- Look at what the numbers mean. For dividing decimals by decimals, line up the decimal values and compute  $3.6 \div 0.12 = 30$ . The explanation should show both the computation and why that computation fits the problem.
- Use the setup first. For dividing decimals by decimals, line up the decimal values and compute  $8.1 \div 0.3 = 27$ . Write the given information first, then choose the operation that matches the situation.
- Check the size of the answer. For dividing decimals by decimals, line up the decimal values and compute  $5.04 \div 0.7 = 7.2$ . A quick estimate helps confirm that the final answer is reasonable.
- Match the operation to the words. For dividing decimals by decimals, line up the decimal values and compute  $12.6 \div 0.06 = 210$ . The explanation should show both the computation and why that computation fits the problem.
- Write the important values first. For dividing decimals by decimals, line up the decimal values and compute  $0.48 \div 0.4 = 1.2$ . Write the given information first, then choose the operation that matches the situation.
- Follow the pattern carefully. For dividing decimals by decimals, line up the decimal values and compute  $9.36 \div 1.2 = 7.8$ . A quick estimate helps confirm that the final answer is reasonable.
- Start with the main idea. For dividing decimals by decimals, line up the decimal values and compute  $6.25 \div 0.25 = 25$ . The explanation should show both

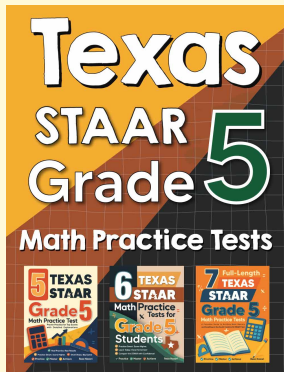
the computation and why that computation fits the problem.

- Keep the work tidy. For dividing decimals by decimals, line up the decimal values and compute  $0.72 \div 0.08 = 9$ . Write the given information first, then choose the operation that matches the situation.
- Look at what the numbers mean. For dividing decimals by decimals, line up the decimal values and compute  $15.5 \div 0.5 = 31$ . A quick estimate helps confirm that the final answer is reasonable.
- Use the setup first. For dividing decimals by decimals, line up the decimal values and compute  $2.88 \div 0.12 = 24$ . The explanation should show both the computation and why that computation fits the problem.
- Check the size of the answer. For dividing decimals by decimals, line up the decimal values and compute  $4.86 \div 0.6 = 8.1$ . Write the given information first, then choose the operation that matches the situation.
- Match the operation to the words. For dividing decimals by decimals, line up the decimal values and compute  $10.5 \div 0.35 = 30$ . A quick estimate helps confirm that the final answer is reasonable.
- Write the important values first. For dividing decimals by decimals, line up the decimal values and compute  $0.96 \div 0.04 = 24$ . The explanation should show both the computation and why that computation fits the problem.
- Follow the pattern carefully. For dividing decimals by decimals, divide total length by piece length:  $8.4 \div 0.6 = 14$ . Write the given information first, then choose the operation that matches the situation.
- Start with the main idea. For dividing decimals by decimals, miles per gallon is  $14.4 \div 0.8 = 18$ . A quick estimate helps confirm that the final answer is reasonable.



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