MATHEMATICS · GRADES 4-6

Dividing decimals

Difficulty level: Intermediate

Mathematics: Grades 4-6

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Overview of the concept

This is how you split a decimal amount fairly. Sharing a restaurant bill between friends, or working out the price of one litre of gas from the price of a full tank, both come down to dividing a decimal. The answer tells you exactly what each person owes or what one unit costs. It is the maths behind every bill you split and every unit price you compare.



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Worked examples

EXAMPLE 1

Q Work out 4.8 ÷ 4.

SOLUTION

This is a decimal divided by a whole number, so divide as usual and keep the decimal point in the answer straight above the one in 4.8.

4 goes into 4 once, and into 8 twice.

So 4.8 ÷ 4 = 1.2

EXAMPLE 2

Q Work out 2.4 ÷ 0.6.

SOLUTION

This is a decimal divided by a decimal, and the long way is messy, so make the divisor a whole number first: multiply both numbers by 10.

2.4 × 10 = 24 and 0.6 × 10 = 6, so the question becomes 24 ÷ 6

24 ÷ 6 = 4, so 2.4 ÷ 0.6 = 4

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Practice questions

1 A 6.3 m rope is cut into 3 equal pieces. How long is each piece?

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2 Apples cost $0.48 for 0.8 kg. What is the cost of 1 kg of apples?

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3 Each of four friends gets 3.9 kg of flour. How many kilograms of flour were shared altogether?

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4 A cyclist rides 7.24 km in 0.4 hours. What is her speed in kilometres per hour?

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5 A 12.5 litre tank is filled with 2.5 litre jugs. How many jugs does it take?

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6 A snail moves 0.036 m in 0.06 minutes. How far does it move in one minute?

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7 A shop has 82.5 kg of rice. It is shared equally among 100 bags. How many kilograms are in each bag?

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8 Share $15.60 equally among 6 friends. How much does each friend get?

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9 A 7.5 m ribbon is cut into pieces that are each 0.25 m long. How many pieces are there?

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10 What is 28 ÷ 0.4?

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ANSWER KEY

1. 2.1

2. 0.6

3. 15.6

4. 18.1

5. 5

6. 0.6

7. 0.825

8. $2.60

9. 30

10. 70

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