

WA7MNAC6

Calculating with number

Core + Challenge

Dividing Decimals

I can divide decimals by whole numbers and by decimals, and interpret the answer in context.

Name: _____ Date: _____ Score: _____ / 57

Key idea

Dividing by a whole number: keep the decimal point in line. $15.75 \div 5 = 3.15$ $0.36 \div 8$: halve three times $\rightarrow 0.045$

Dividing by a decimal: multiply both numbers by 10, 100, ... until the divisor is whole. The answer does not change. $6.4 \div 0.8 = 64 \div 8 = 8$

Why: $6.4 \div 0.8$ asks 'how many 0.8s fit in 6.4?' Dividing by a number less than 1 gives a **larger** answer.

Unit price: divide price by quantity. \$6.50 for 1.25 kg $\rightarrow 6.50 \div 1.25 = \$5.20$ per kg

A Fluency *practise the skill*

/ 16 marks

Work out each quotient without a calculator.

1. $8.4 \div 4 =$ _____

9. $9.6 \div 1.2 =$ _____

2. $0.36 \div 8 =$ _____

10. $0.05 \div 0.2 =$ _____

3. $6.4 \div 0.8 =$ _____

11. $15.75 \div 5 =$ _____

4. $3.5 \div 0.5 =$ _____

12. $1.8 \div 0.03 =$ _____

5. $12 \div 0.4 =$ _____

13. $7 \div 0.25 =$ _____

6. $0.72 \div 0.9 =$ _____

14. $0.084 \div 0.7 =$ _____

7. $45.6 \div 100 =$ _____

15. $27.4 \div 2 =$ _____

8. $2.4 \div 0.06 =$ _____

16. $4.5 \div 0.15 =$ _____

Dividing Decimals · WA7MNAC6

B**Core** *apply the skill to problems*

/ 22 marks

- 1 Four friends share a \$12.60 bill equally. How much does each pay? [2 marks]

.....

Answer: _____

- 2 A 2.4 m plank is cut into pieces 0.3 m long. How many pieces are there? [2 marks]

.....

Answer: _____

- 3 A car travels 364.5 km on 27 L of fuel. How many kilometres does it travel per litre? [2 marks]

.....

Answer: _____

- 4 Brand A sells 1.25 kg of mince for \$6.50. Brand B sells 2 kg for \$9.90. Find each price per kilogram. Which is the better buy? [3 marks]

.....

.....

Answer: _____

- 5 How many 0.25 L cups can be filled from a 1.5 L bottle? [2 marks]

.....

Answer: _____

- 6 A rectangle has an area of 12.6 m^2 and a width of 2.8 m. Find its length. [2 marks]

.....

Answer: _____

- 7 A leaking tank loses 0.45 L of water per minute. How long will it take to lose 9 L? [2 marks]

.....

Answer: _____

Dividing Decimals · WA7MNAC6

- 8 Use a calculator to find $27.4 \div 1.05$, correct to 2 decimal places. Estimate first to check. [2 marks]

.....

.....

Answer: _____

- 9 Each gift bow uses 0.15 m of ribbon. How many bows can be made from a 3.6 m roll? [2 marks]

.....

.....

Answer: _____

- 10 Six friends split a restaurant bill of \$86.40 equally, and each adds a \$2.50 tip. How much does each person pay? [3 marks]

.....

.....

Answer: _____

C Reasoning *explain, justify and check*

/ 9 marks

- 1 Explain why $6.4 \div 0.8$ gives the same answer as $64 \div 8$. [2 marks]

.....

.....

- 2 Explain why $12 \div 0.4$ is greater than 12. [2 marks]

.....

.....

- 3 Tom says $0.6 \div 0.2 = 0.3$. Explain his mistake and give the correct answer. [2 marks]

.....

.....

- 4 Without calculating, order from smallest to largest and explain: $5 \div 0.5$ $5 \div 2$ $5 \div 0.05$ $5 \div 1.25$ [3 marks]

.....

.....

Dividing Decimals · WA7MNAC6

D**Challenge** *multi-step and problem-solving*

/ 10 marks

- 1 A number divided by 0.25 gives 14.4. What is the number?

[2 marks]

.....

.....

Answer: _____

- 2 Given $216 \div 18 = 12$, write down:

[3 marks]

(a) $21.6 \div 1.8$ (b) $2.16 \div 0.18$ (c) $216 \div 0.018$

.....

.....

- 3 Brand A: 375 g of cereal for \$4.50. Brand B: 0.6 kg for \$6.90. Find the price per 100 g for each. Which is better value?

[3 marks]

.....

.....

Answer: _____

- 4 Find the number d that makes each true.

[2 marks]

(a) $4.2 \div d = 0.7$ (b) $4.2 \div d = 70$

.....

.....

How did I go?

Fluency ____ / 16 Core ____ / 22 Reasoning ____ / 9 Challenge ____ / 10 **Total** ____ / 57

Stuck on a section? Our Year 7 tutors can show you exactly what to practise next. **Book a free trial class at**
edulift.com.au