

WA4MNAFR1

Fractions and decimals

Core + Challenge

Fractions of a Quantity

I can find a fraction of a quantity by dividing into equal parts and multiplying by the numerator.

Name: _____ Date: _____ Score: / 53

Key idea

Finding a fraction of an amount: divide the amount by the denominator to find one part, then multiply by the numerator to find how many of those parts you need.

E.g. $\frac{3}{4}$ of 24: $24 \div 4 = 6$ (one part), then $6 \times 3 = 18$.

A Fluency *practise the skill*

/16 marks

Find the value of each fraction of the quantity.

1. $\frac{1}{2}$ of 18 = ? _____

2. $\frac{1}{3}$ of 21 = ? _____

3. $\frac{3}{4}$ of 20 = ? _____

4. $\frac{2}{5}$ of 30 = ? _____

5. $\frac{1}{4}$ of 32 = ? _____

6. $\frac{2}{3}$ of 18 = ? _____

7. $\frac{3}{5}$ of 25 = ? _____

8. $\frac{1}{6}$ of 24 = ? _____

9. $\frac{5}{8}$ of 16 = ? _____

10. $\frac{1}{2}$ of 40 = ? _____

11. $\frac{3}{10}$ of 50 = ? _____

12. $\frac{2}{4}$ of 28 = ? _____

13. $\frac{1}{5}$ of 45 = ? _____

14. $\frac{4}{6}$ of 12 = ? _____

15. $\frac{7}{10}$ of 20 = ? _____

16. $\frac{3}{8}$ of 24 = ? _____

B Core *apply the skill to problems*

/21 marks

1

A class of 24 students goes on an excursion. $\frac{3}{4}$ of the students bring their own lunch. How many students bring their own lunch?

[3 marks]

Answer: _____

2

A farmer has 60 sheep. $\frac{2}{5}$ of the sheep are lambs. If 10 of the lambs are later sold, how many lambs remain?

[4 marks]

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Answer: _____

3

A library has 45 books on a shelf. $\frac{1}{3}$ of the books are fiction. How many books are fiction?

[3 marks]

Answer: _____

4

A school has 80 students in Year 4. $\frac{3}{8}$ of them play a musical instrument. Of those who play an instrument, $\frac{1}{3}$ play the piano. How many Year 4 students play the piano?

[4 marks]

Answer: _____

5

A charity collects \$120. $\frac{5}{6}$ of the money is spent on food. How much money is spent on food?

[3 marks]

Answer: _____

6

A garden has 72 plants. $\frac{1}{4}$ of the plants are flowers and $\frac{1}{3}$ of the plants are vegetables. How many more vegetable plants are there than flower plants?

[4 marks]

Answer: _____

C**Reasoning** *explain, justify and check***/9 marks****1**

Explain the two steps needed to find $\frac{2}{3}$ of 18, using words.

[2 marks]

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2

A student says that to find $\frac{3}{4}$ of a number, you should multiply by 4 first. Explain why this is the wrong order of steps.

[2 marks]

3

Explain how you can check that $\frac{3}{5}$ of $40 = 24$ is correct.

[2 marks]

4

A student says that finding a fraction of a quantity always makes the quantity smaller. Is this true? Explain and give an example that supports your answer.

[3 marks]

D

Challenge *multi-step and problem-solving*

/7 marks

1

$\frac{3}{4}$ of a number is 27. What is the number?

[2 marks]

Answer: _____

2

A number has $\frac{2}{5}$ of it equal to 18. What is $\frac{4}{5}$ of the same number?

[2 marks]

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Answer: _____

3

A tank holds 90 litres when full. After $\frac{2}{3}$ of the water is used, $\frac{1}{5}$ of what remains is then poured out. How many litres of water are left in the tank?

[3 marks]

Answer: _____

How did I go?

Fluency ___/16 Core ___/21 Reasoning ___/9 Challenge ___/7 **Total ___/53**

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