

WA6MNAMN1

Modelling with number

Core + Challenge

Problem Solving with Number

I can pick out the information I need, show a problem with a model or number sentence, and justify my answer.

Name: _____ Date: _____ Score: _____ / 57

Key idea

Read the problem. Underline what you need to find. Cross out information you do **not** need.

Show it: draw a bar model or table, or write a number sentence (use brackets if you need them).

Solve, then **check**: is the answer reasonable, and does it answer the question?

Example: 3 packs of 24 sausages, 65 sold. How many left? $3 \times 24 - 65 = 72 - 65 = 7$ sausages.

Bar model: 3 packs of 24, 65 sold, 7 left

$3 \times 24 = 72$									
65 sold								7	

A

Warm up *shade, model and solve*

/ 16 marks

Each strip is one whole. Shade to show the answer, then write it. 1 mark each.

1 $\frac{2}{8} + \frac{3}{8} =$ _____



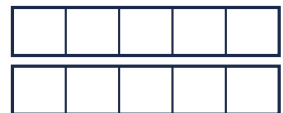
2 $\frac{4}{10} + \frac{5}{10} =$ _____



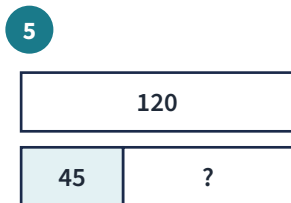
3 $\frac{5}{6} - \frac{2}{6} =$ _____

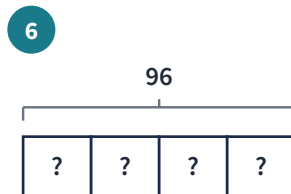


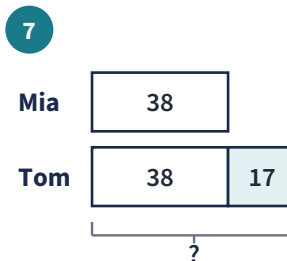
4 $\frac{3}{5} + \frac{4}{5} =$ _____

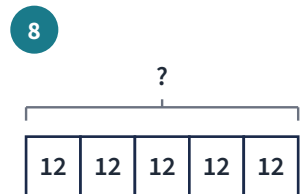


Find the missing number ? in each bar model. 1 mark each.









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Solve each problem. 1 mark each.

- 9 6 relay teams have 8 runners each. Then 5 runners go home sick. How many runners are left?
- 10 72 lollies are shared equally into 9 bags. Tom eats one bag. How many lollies are left?
- 11 A \$17 book and a \$4 pen are paid for with a \$50 note. How much change?
- 12 Sam ate $\frac{3}{8}$ of a pizza and Ali ate $\frac{2}{8}$. What fraction did they eat altogether?
- 13 A program costs \$12 and tickets cost \$6 each. Ali has \$54 and buys a program. How many tickets can he buy?
- 14 $\frac{7}{10}$ of the class walked to school. What fraction did **not** walk?
- 15 Mum buys 3 packs of 12 eggs and 5 more eggs. How many eggs?
- 16 28 students and 4 teachers sit 4 to a table. How many tables are needed?

B**Practise** *use the skill*

/ 22 marks

- 1 The cake stall has 4 trays of 24 cupcakes. 67 are sold before lunch and 18 after lunch. Label the bar model. How many cupcakes are left? [2 marks]

4 trays of 24		
67	18	?

Answer: _____

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- 2 Excursion to Perth Zoo: **60** students and **6** teachers are going. The bus leaves at **8:45 am**. Entry is **\$18** per student (teachers are free). Bus hire is **\$420**. **a)** List the information you do **not** need. **b)** What is the total cost? **c)** If the cost is shared equally by the students, how much does each pay? [3 marks]

a) _____

b) _____

c) _____

- 3 You need **12** sports drinks for the team. Coles sells packs of **6** for **\$9**. Woolies sells packs of **4** for **\$7**. Complete the table. Which shop is cheaper, and by how much? [2 marks]

Shop	Packs	Cost
Coles		
Woolies		

Answer: _____

- 4 Year 6 raised money for charity. $\frac{3}{10}$ came from the sausage sizzle and $\frac{4}{10}$ came from the raffle. The rest came from the cake stall. Shade and label the strip. What fraction came from the cake stall? The total raised was **\$600**. How much came from the cake stall? [3 marks]

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Answer: _____

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- 5 Sports carnival points: **1st = 5, 2nd = 3, 3rd = 1**. Complete the table. Which faction won? Is it the faction with the most first places? [3 marks]

Faction	1st places	2nd places	3rd places	Total points
Swan	4	3	2	
Avon	3	4	3	
Canning	5	1	4	
Murray	2	6	5	

Answer: _____

- 6 In an **800 m** relay, Leah runs $\frac{2}{8}$ of the distance and Jai runs $\frac{1}{8}$. Mo runs the rest. [2 marks]
Who runs the **most**? How many metres does Mo run?

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Answer: _____

- 7 Year 6 sells **125** raffle tickets at **\$2** and **40** cupcakes at **\$3**. The prizes cost **\$95**. [3 marks]
Write **one** number sentence for the profit. Then work it out.

Answer: _____

- 8 **154** students and **12** adults go on an excursion. Each minibus holds **24** people. [2 marks]
How many minibuses are needed? Justify your answer.

Answer: _____

- 9 For the carnival lunch, **27** students each order a wrap for **\$6** and a juice for **\$2**. [2 marks]
The teacher has **\$200**. Is that enough? Show your working.

Answer: _____

C

Think it through *explain your thinking*

/ 10 marks

- 1 Lily says $\frac{3}{5} + \frac{4}{5} = \frac{7}{10}$, “which is less than 1”. Do you agree with Lily? Explain. You may draw strips. [2 marks]

- 2 **True or false?** “100 students are going on a trip. Each bus seats 30. $100 \div 30 = 3 \text{ r } 10$, so **3** buses are needed.” Explain. [2 marks]

- 3 **Always, sometimes or never true?** “When you add two fractions with the same denominator, the answer is less than 1.” Circle one and give examples. [2 marks]

Always

Sometimes

Never

- 4 Which story does **not** match the number sentence $5 \times 8 + 3$? Explain. Then write your own story for $5 \times (8 + 3)$. [2 marks]

A 5 bags of 8 apples, and 3 more apples.

B 5 tables of 8 people, then 3 people leave.

C 8 rows of 5 chairs, and 3 extra chairs.

D 3 teachers and 5 groups of 8 children.

- 5 The team needs **9** pizzas. Deal A: **3 pizzas for \$30**. Deal B: pizzas are **\$13** each, but **buy 2, get 1 free**. Which deal is better? Justify your decision. [2 marks]

D**Challenge** *stretch yourself*

/ 9 marks

- 1 At the fete, Priya spends **\$8** on a show bag. Then she spends **half** of what is left on rides. She has **\$11** left. How much money did she start with? Show how you worked backwards. [3 marks]

Answer: _____

- 2 Carnival tickets cost **\$5** for an adult and **\$3** for a child. A family pays exactly **\$23**. How many adults and children could there be? Find **all** the possibilities. [3 marks]

Adults					
Money left for children					
Children					

Answer: _____

- 3 The school's goal is to raise **\$900**. In week 1 they raise $\frac{2}{9}$ of the goal. In week 2 they raise $\frac{4}{9}$ of the goal. **a)** What fraction of the goal is still needed? How much money is that? **b)** If they raise **\$75** a day from now on, how many more days will it take? [3 marks]

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Answer: _____

How did I go?Warm up ____ / 16 Practise ____ / 22 Think it through ____ / 10 Challenge ____ / 9 **Total ____ / 57**Want help with Year 6 maths? Our tutors make it click. **Book a free trial class at [edulift.com.au](https://www.edulift.com.au)**