1. Here are six cards.

× 10	× 100	× 1000
÷ 10	÷ 100	÷ 1000

Use a card to complete each calculation.

5.3 ☐ = 0.53

5.3 ☐ = 5300

5.3 ☐ = 0.053

2 marks

2.

☐ × 10 = 350.5

460 ÷ ☐ = 4.6

2.3 × ☐ = 2,300

2 marks

3. The examples below show the first 2 numbers in a sequence.

Find **2 different** ways to continue each sequence.

Use addition for the first and multiplication for the second.

0.01	10	

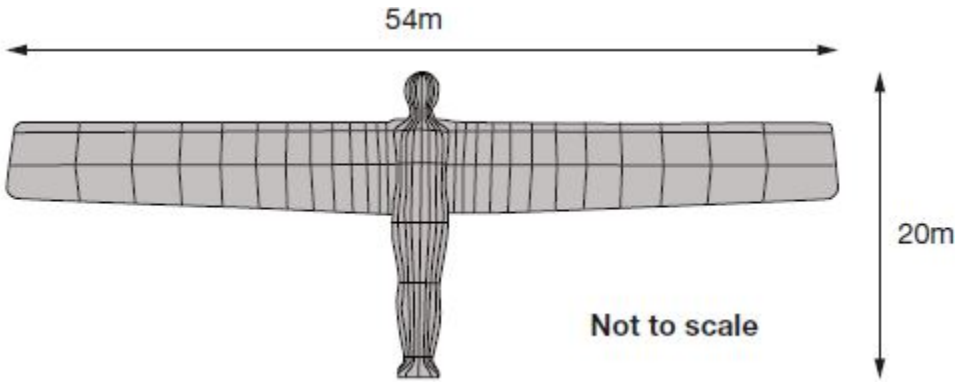
or

0.01	10	

1 mark

4. The Angel of the North is a large statue in England.

It is 20 metres tall and 54 metres wide.



Ally makes a scale model of the Angel of the North.

Her model is 40 centimetres tall.

How **wide** is her model?

cm

1 mark

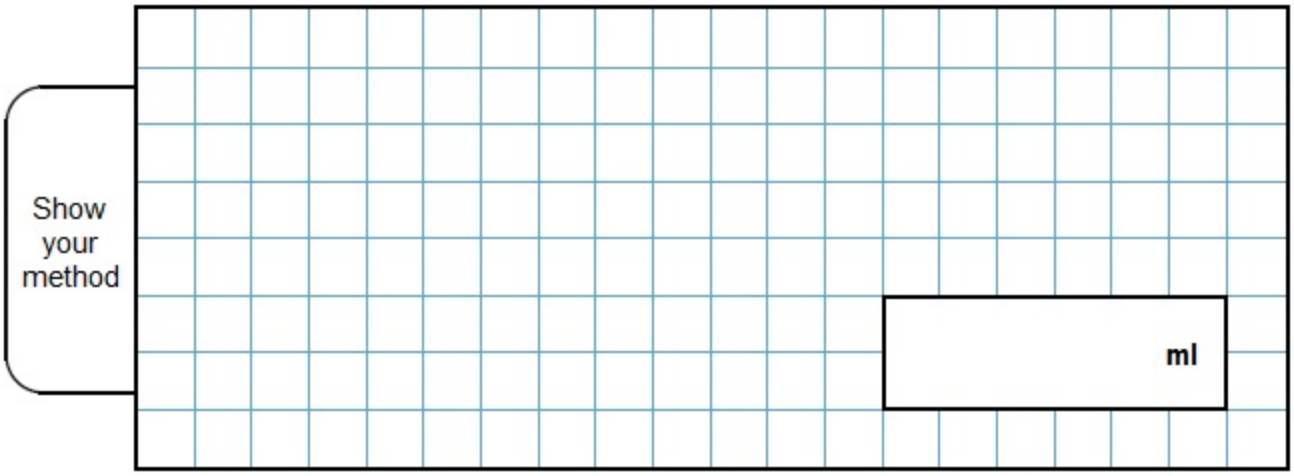
5. You can make green paint by mixing:

- 250 ml of blue paint
- 1,150 ml of yellow paint.

Stefan wants to make some of this green paint.

He uses 750 ml of **blue** paint.

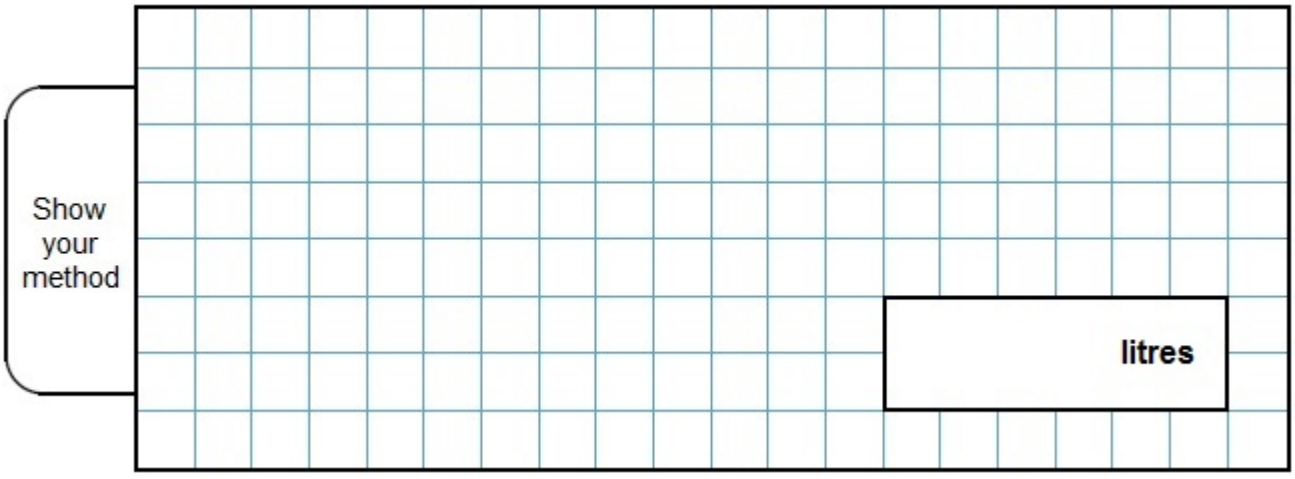
How much **green** paint does he make?



2 marks

6. A machine pours 250 millilitres of juice every 4 seconds.

How many **litres** of juice does the machine pour every **minute**?



2 marks

7. Calculate 55% of 640

1 mark

8.

The **full price** of a T-shirt is £15

The price is reduced by 30%.

What is the **reduced price**?

Show your method

£

2 marks

9. Jack has £400

He spends **35%** of his money on a new bike.

How much does Jack spend on his new bike?

£

1 mark

10. Calculate $\frac{3}{4}$ of **£15**

£

1 mark

11. Write the missing fraction to make this **addition** correct.

$$\frac{2}{3} + \square = \frac{5}{6}$$

1 mark

12. (a) Write numbers in the boxes to make this fraction calculation correct.

$$\frac{1}{\square} + \frac{\square}{5} = \frac{7}{10}$$

1 mark

(b) Now write two **different** numbers to make the calculation correct.

$$\frac{1}{\square} + \frac{\square}{5} = \frac{7}{10}$$

1 mark

13. Circle two numbers that add together to equal **0.25**

0.05 0.23 0.2 0.5

1 mark

14. Write these numbers in order of size, starting with the **smallest.**

1.9 0.96 1.253 0.328

smallest

1 mark

15. Two decimal numbers add together to equal 1

One of the numbers is 0.007

What is the other number?

1 mark

16. a and b each represent a whole number between 1 and 10

$$2a + b = 8$$

Write the three possible combinations of a and b
One is done for you.

when a = 1 b = 6

when a = ☐ b = ☐

when a = ☐ b = ☐

2 marks

17.  and  each stand for a different number.

 = 34

What is the value of  ?

☐

1 mark

18. Dev says,

Which expression shows how much money Dev has left?

a is the amount of money, in pounds, that Dev gave away.

Tick **one**.

$10 + a$ ☐

$10 \div a$ ☐

$a - 10$ ☐

$10 - a$ ☐

$a \times 10$ ☐

1 mark

Mark schemes

1. Award **TWO** marks for all three calculations completed correctly, as shown:

5.3 **÷ 10** = 0.53

5.3 **× 1000** = 5300

5.3 **÷ 100** = 0.053

If the answer is incorrect, award **ONE** mark for two calculations correct.

Up to 2

[2]

2. All three correct
35.05
100
1000

2

or

Any two correct

1

[2]

3.

0.01	10	**19.99**

or

0.01	10	**10,000**

[1]

4. 108

[1]

5. Award **TWO** marks for the correct answer of 4,200

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 750 ÷ 250 = 3
  1,150 + 250 = 1,400
  1,400 × 3

OR

- 750 ÷ 250 = 3
  1,150 × 3 = 3,350 *(error)*
  3,350 + 750

Award **ONE** mark for sight of 3450, 3.45 **OR** 3.450 (as evidence of correctly calculating how much yellow paint is required).

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

6. Award **TWO** marks for the correct answer of 3.75

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 60 ÷ 4 = 15
- 250 × 15 = 3750
- 3750 ml ÷ 1000 =

OR

- 250 ÷ 4 = 62.5 ml per second
- 62.5 × 60 = 3750
- 3750 ml ÷ 1000 =

OR

- 60 ÷ 4 = 15, so there are 15 lots of 4 seconds in 1 minute so there are 15 bottles per minute.
- There are 4 bottles in 1 litre
- 15 ÷ 4 =

*Accept for **TWO** marks, 3,750 ml for final answer in working and the answer box blank **OR** 3,750 in the answer box where the litres has been replaced with millilitres.*

*Accept for **ONE** mark 3,750 litres (l) in the answer box **OR** the final answer in working and answer box blank.*

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

7. 352

Do not *accept 352%*

[1]

8. Award **TWO** marks for the correct answer of (£)10.50

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 70 × 15 ÷ 100

OR

- 10 × 15 ÷ 100 = £1.50
  3 × £1.50 = £4.50
  £15 − £4.50

OR

Award **ONE** mark for sight of (£)4.50

Answer need not be obtained for the award of ***ONE*** *mark.*

Award ***ONE*** *mark for a final answer of (£)10.5* ***OR*** *(£)105* ***OR*** *(£)1050 as evidence of an appropriate method.*

Refer to section 2.1 on pages 8 and 9 for additional guidance on marking answers involving money (see Resource).

Up to 2m

[2]

9. £140

Do not *accept 140%*

[1]

10. £11.25

[1]

11. Award **ONE** mark for:

$\frac{1}{6}$

Accept equivalent fractions or an exact decimal equivalent, e.g. $0.1\dot{6}$ *(accept any unambiguous indication of the recurring digits).*

Do not *accept rounded or truncated decimals.*

[1]

12. (a) Gives a pair of numbers to make the calculation correct, eg:

- $\frac{1}{2} + \frac{1}{5}$
- $\frac{1}{10} + \frac{3}{5}$

Accept the following

- $\frac{1}{-10} + \frac{4}{5}$
- $\frac{1}{-2} + \frac{6}{5}$

***Do not accept** use of non-integers, eg:*

- $\frac{1}{3.33...} + \frac{2}{5}$

1

(b) Gives a **different** pair of numbers to make the calculation correct

1

[2]

13. Numbers circled as shown:

(0.05) 0.23 (0.2) 0.5

Accept alternative unambiguous positive indications, e.g. numbers ticked or underlined.

[1]

14. Numbers in order as shown:

0.328	0.96	1.253	1.9

[1]

15. 0.993

[1]

16. Award **TWO** marks for both correct combinations, as shown.

when a = 2 b = 4

when a = 3 b = 2

OR

when a = 3 b = 2

when a = 2 b = 4

Award **ONE** mark for either combination correct, i.e.

when a = 2 b = 4

OR

when a = 3 b = 2

[2]

17. 17

U1

[1]

18. Award **ONE** mark for the correct box ticked, as shown:

Tick **one.**

10 + a	
10 ÷ a	
a – 10	
10 − a	✓
a × 10	

Accept alternative unambiguous positive indication of the correct answer, e.g. Y.

[1]