MATHS NATIONAL CURRICULM ALIGNED

SMARTGRADE ASSESSMENT SERIES

Year 5

Standardised test SUMMER

Mathematics reasoning

Pupil answer booklet

First name	
Last name	
School name	
Class	
Date	

Score: ..... **/ 50**

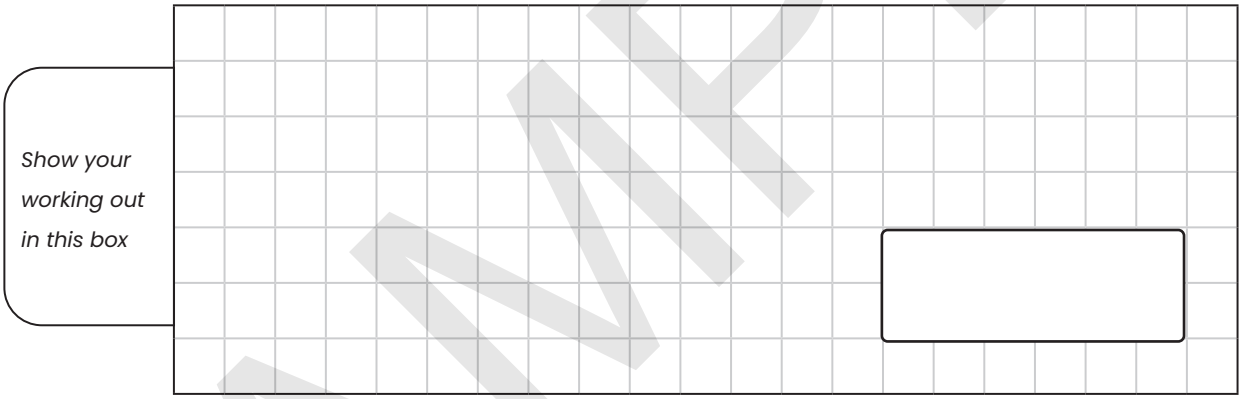
Instructions

You are **not** allowed to use a calculator to answer any questions in this test.

Your teacher will go through these instructions with you.

Questions and answers

You have **50 minutes** to complete this test.
Work quickly and carefully, following the instructions for each question.
If you need to do working out, you can use the space around the question.
Some questions have a 'working out' box like this:



For these questions, you may get a mark for showing your working out.
If you cannot do a question, **go on to the next one**.
You can come back to it later, if you have time.
If you finish before the end, **go back and check your work**.

Equipment

You will need a pencil or pen and a ruler.

Marks

The number under each line at the side of the page tells you the number of marks available for each question.

1 Put the following numbers in order of size, starting with the smallest.

a) 4,821 4,654 4,889 4,748

smallest			**largest**

b) 924,382 928,574 942,328

smallest		**largest**

2 marks

2 A taxi can carry **6** people.

How many taxis are needed to take **77** people to an event?

taxis

1 mark

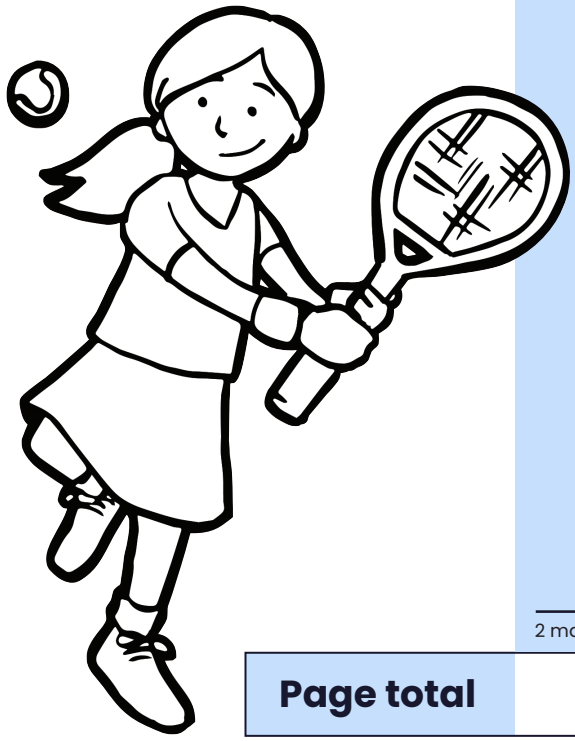
Page total

3 Look at the Carroll diagram about children in Year 5.

	Children who like tennis	Children who don't like tennis
Boys	Billy Fergus Oliver Mahmood	Dom James Sol Lewis Jaden
Girls	Charlotte Lulu Razina Kaya Maria	Petrina Jess Maddie

a How many more girls than boys like tennis?

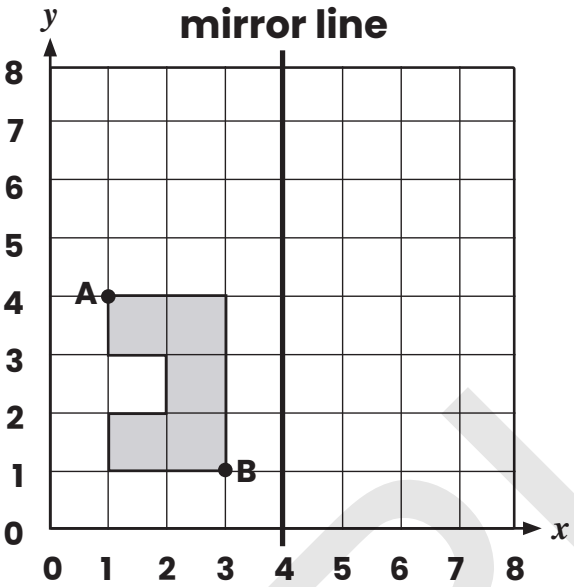
b What fraction of the total number of children don't like tennis?



2 marks

Page total

4 Look at the shaded shape on the grid below.
The co-ordinates of **A** are **(1, 4)** and the co-ordinates of **B** are **(3, 1)**.



Make a reflection of the shape in the mirror line and write the new co-ordinates for **A** and **B**.

A is now at (☐ , ☐)

B is now at (☐ , ☐)

2 marks

5 Complete the sequences below.

a -150 ☐ -50 0 50

b 70 50 30 10 ☐

2 marks

Page total

6 Here are the amounts of water that Mr Patel drank at work one day:

Morning **650 ml** Lunch time **500 ml** Afternoon **450 ml**

During the same day, Mrs Nile drank **2 litres** of water at work.

How many more millilitres of water did Mrs Nile drink than Mr Patel?

Show your working out in this box

millilitres

2 marks

7 Tick (✓) the **3** circles that show equivalent values.

20% 60% $\frac{1}{5}$

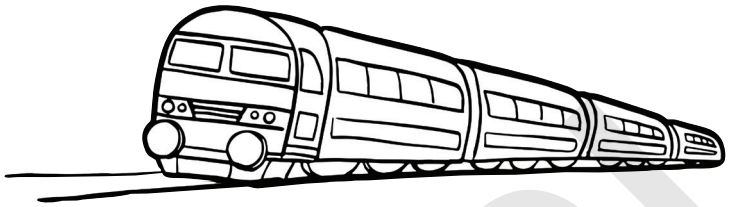
$\frac{2}{6}$ $\frac{4}{5}$ 3.0 0.2

2 marks

Page total

Train Timetable

Lexminster	07:15	09:20	11:25	13:50
Battishead		10:10	12:15	14:40
Corville	08:55	11:00	13:05	15:30



8 Ruksana goes to the station in Lexminster at **13:30** and catches the next train to Corville.

At what time does she arrive in Corville? ☐

1 mark

9 Fill in the boxes to show the mixed number and improper fraction equivalents.

a) $\frac{11}{9} = 1\frac{\square}{9}$

c) $\frac{11}{5} = 2\frac{\square}{5}$

b) $\frac{\square}{7} = 1\frac{4}{7}$

d) $\frac{\square}{3} = 3\frac{1}{3}$

4 marks

Page total

10 Felix uses Roman numerals to represent four different years.

MMIX **MCMLI** **MMXIX** **MMXI**

Write the answer to each question in numbers.

a Which year is earliest? .....

b Which year is the latest? .....

c Which year is closest to the year 2000? .....

3 marks

11 Draw lines to match pairs of calculations that have the same answer.

50 × 9	20 × 4
320 ÷ 4	40 × 3
90 × 4	900 ÷ 2
600 ÷ 5	6 × 60

2 marks

Page total

12 Jessica is building a track for her model trains.

Each piece of the track is the same length.

Jessica has already fixed some pieces together to build 1.95 m of track.

She adds three more pieces so the track continues to grow like this:

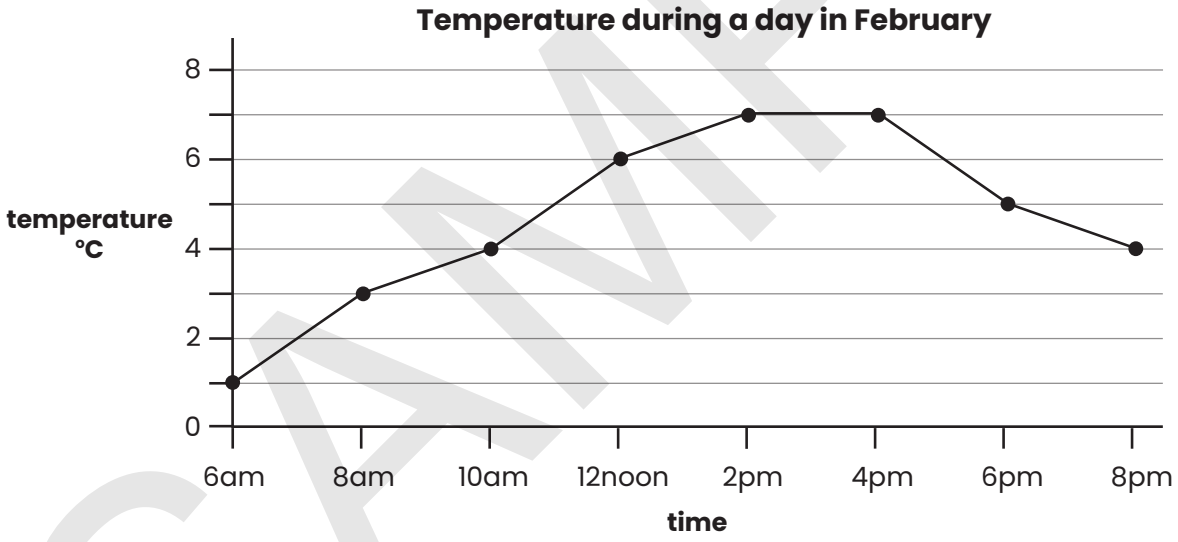
1.95 m ⟶ **2.6 m** ⟶ **3.25 m** ⟶ **3.9 m**

What is the length of each piece of train track?

_____ m

1 mark

13 Look at the line graph below.



a What is the difference between the temperature at **6am** and **4pm**?

_____ °C

b The highest temperature on a day in March was **3°C** higher than the highest temperature shown on the line graph.

What was the temperature on the day in March?

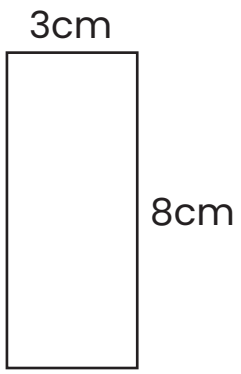
_____ °C

2 marks

Page total _____

14 Calculate the area of these rectangles below.

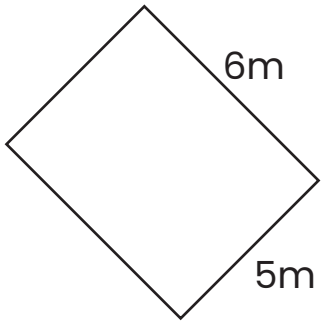
a



area = ____ cm^2

drawings are not to scale

b



area = ____ m^2

2 marks

15 Mrs Paynter borrows £1,200 from the bank to decorate her house.

She must pay back the £1,200 plus an extra one-tenth of the amount she borrowed.

How much must Mrs Paynter pay back in total?

Show your working out in this box

£

2 marks

Page total

16 Three different events helped to raise a total of £69,758 for charity.

£24,352 was raised through a sporting event.

£32,648 was raised through a music event.

How much money was raised by the third event?

Show your working out in this box

£

2 marks

17 Leon rounds a number in three different ways.
He records the results in a table.

Number	Round to the nearest 100,000	Round to the nearest 10,000	Round to the nearest 1,000
?	500,000	450,000	453,000

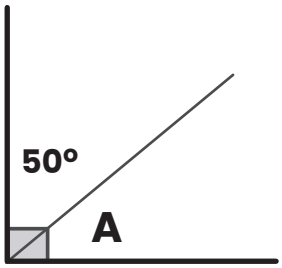
Circle all the numbers below that Leon could be rounding.

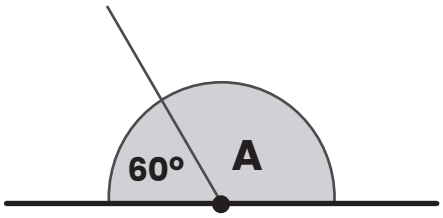
453,535 452,291 452,912 453,496

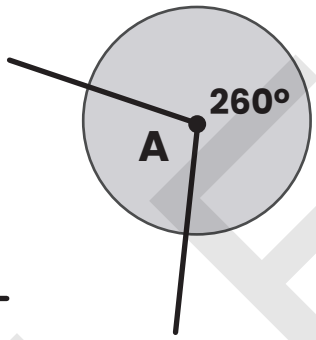
1 mark

Page total

18 Calculate the size of angle **A** in each of the examples below.
Write your answers in the boxes.







a ☐ °

b ☐ °

c ☐ °

2 marks

19 Look at the conversion table below.

1 inch ≈ 2.5 cm	
2.2 pounds ≈ 1 kilogram	
1 pint ≈ 568 ml	

Use the conversion table to work out the following conversions.

a 10 inches ≈ ☐ centimetres

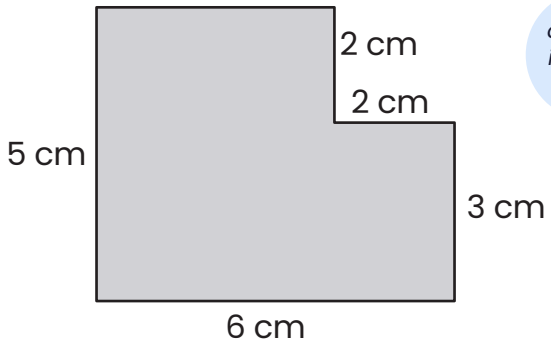
b 6.6 pounds ≈ ☐ kilograms

c 3.5 pints ≈ ☐ millilitres

3 marks

Page total

20 Calculate the perimeter of the shape below without measuring.



drawing is not to scale

Perimeter = _____ cm

1 mark

21 Put each of the following numbers into the correct box below.

37 **72** **13** **28** **14** **7**

PRIME	COMPOSITE (NOT PRIME)

2 marks

22 Ling is solving some problems about time.

She knows that there are 365 days in a year.

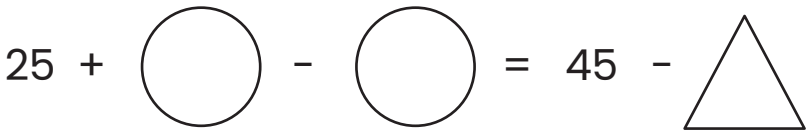
a) How many hours are there in two of these years? _____ hours

b) How many hours are there in total if one of the years is a leap year? _____ hours

3 marks

Page total

23 Shapes are used to represent numbers in an equation.



Identical shapes have the same value.
What is the value of the △ ?

1 mark

24 Mr Johnson drove his car for a **thousand** miles.

Write **TRUE (T)** or **FALSE (F)** after the statements below.

a After driving for **100** miles, he had completed $\frac{1}{10}$ of his journey.

b After driving for **10** miles, he had completed **10%** of his journey.

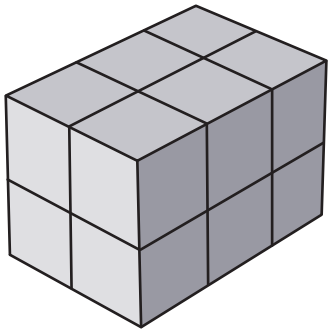
c After completing **0.8** of his journey, he still had **200** miles to drive.

d After driving for **900** miles, he still had $\frac{1}{100}$ of his journey to complete.

2 marks

Page total

25 Jake builds this cuboid with centimetre cubes.



He wants to change the shape of his model to a cube with edges of 3 cm.
How many more centimetre cubes does he need to use?

_____ cubes

3 marks

END OF SUMMER TEST

Page total