



# Key Stage 2 SATs: Maths

Two Mile Ash School  
Presentation to Parents

November 2021

# Mathematics

- Children will sit three tests: Paper 1, Paper 2 and Paper 3.
- Paper 1 is for 'Arithmetic' lasting for 30 minutes, covering calculation methods for all operations, including use of fractions, percentages and decimals.
- Questions gradually increase in difficulty. Not all children will be expected to access some of the more difficult questions later in the paper.
- Papers 2 and 3 cover 'Problem Solving and Reasoning', each lasting for 40 minutes.
- Pupils will still require calculation skills but will need to answer questions in context and decide what is required to find a solution.

# Mathematics

## Topics covered in year 6

- Place Value
- Addition
- Subtraction
- Multiplication
- Division
- Roman Numerals
- Negative numbers
- Fractions
- Decimals
- Percentages
- Ratio and proportion
- Area
- Perimeter
- Time
- Length
- Volume
- Weight
- Coordinates
- Reflection
- Translation
- Enlargement
- Rotation
- Properties of shape
- Angles
- Money
- Rounding

A lot of the time, multiple questions are covered in the same questions so children will need to use knowledge from more than one topic

# Mathematics

- Most of the maths your children will learn is heavily dependent on your children being fluent with their x tables. If they are still struggling with them, now is the time to start practicing!
- They will also need to use their reading skills in the Reasoning papers -
- There were twice as many words in the 2018 SAT paper than the 2017 SAT paper.
- The reading age of the reasoning SAT papers in May 2018 was 14 – 15 years old.
- So, please focus on reading and times tables at home as this will really help.

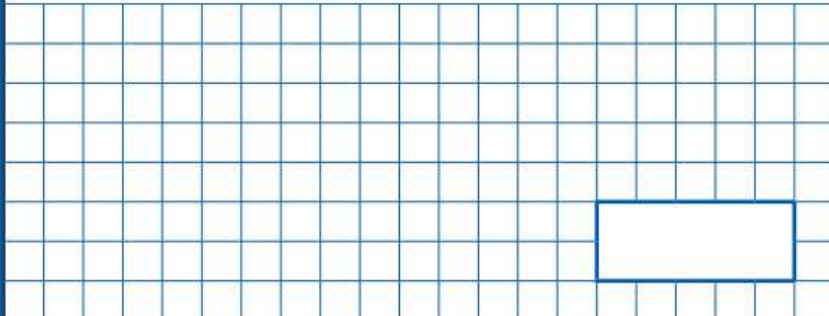
# Mathematics

- To meet end of year expectations, children need to achieve a scaled score of 100.
- The number of marks needed to achieve that score has been going up:
  - 2016: 60 out of 110
  - 2017: 57 out of 110
  - 2018: 61 out of 110
  - 2019: 58 out of 110
  - It is likely to go up again this year.
- The children's raw score (actual marks on the paper) will be converted to a scaled score out of 100, which will be their final score.

# Sample Questions

## Maths Paper 1: Arithmetic

**24**  $15.4 - 8.88 =$

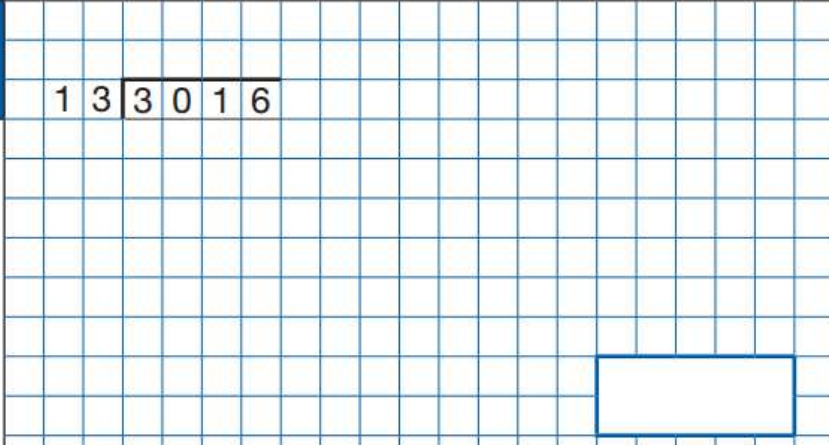


1 mark

**25**

1 3 | 3 0 1 6

Show your method



2 marks

# Sample Questions

**31**

$$\frac{1}{4} \div 2 =$$

A grid of red lines on a white background, intended for working out the answer to the question. The grid is 20 squares wide and 10 squares high. A blue rectangular box is drawn on the grid, spanning 4 squares in width and 2 squares in height, positioned in the lower right area of the grid.

1 mark

**32**

$$9^2 - 36 \div 9 =$$

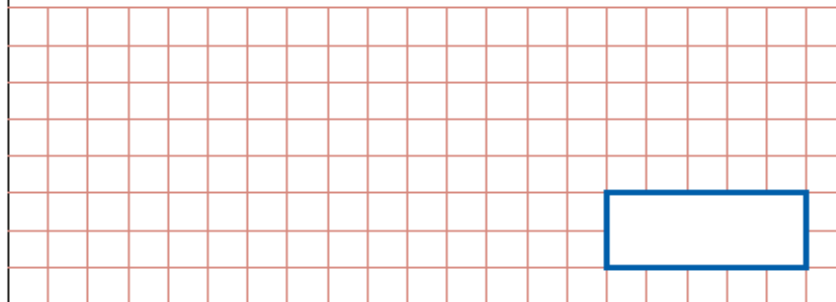
A grid of red lines on a white background, intended for working out the answer to the question. The grid is 20 squares wide and 10 squares high. A blue rectangular box is drawn on the grid, spanning 4 squares in width and 2 squares in height, positioned in the lower right area of the grid.

1 mark

# Sample Questions

28

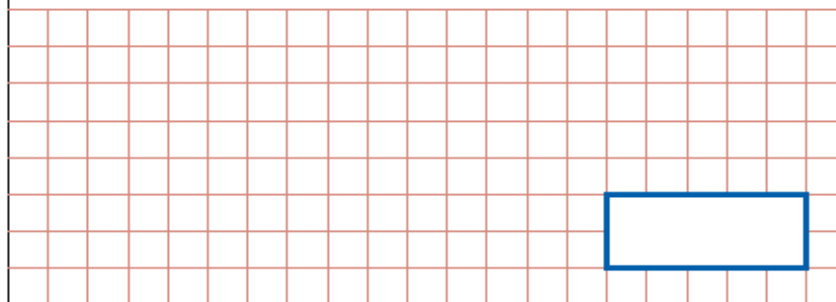
$$\frac{5}{8} \div 2 =$$



1 mark

29

$$45\% \text{ of } 460 =$$



1 mark

30

$$2\frac{1}{3} + \frac{5}{6} =$$

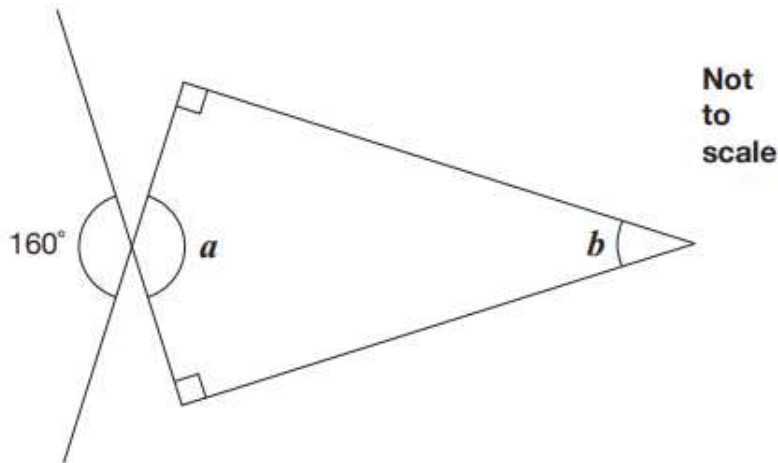




# Sample Questions

## Maths Paper 2 / Paper 3 : Reasoning

Calculate the size of angles  $a$  and  $b$  in this diagram.



$$a = \boxed{\phantom{000}}^{\circ} \quad \underline{\hspace{1cm}} \\ 1 \text{ mark}$$

$$b = \boxed{\phantom{000}}^{\circ} \quad \underline{\hspace{1cm}} \\ 1 \text{ mark}$$

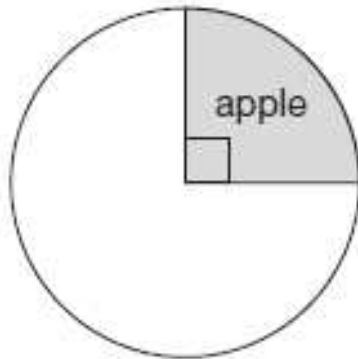


# Sample Questions

## Maths Paper 2 / Paper 3 : Reasoning

Chen makes a pie chart to show the results.

What **angle** should he use for the children who chose **mango**?



1 mark



# Sample Questions

## Maths Paper 2 / Paper 3 : Reasoning

The list below shows the years in which the Cricket World Cup was held since 1992:

1992, 1996, 1999, 2003, 2007, 2011, 2015

Adam says,

The Cricket World Cup has been held every four years since 1992.



Adam is **not** correct.

Explain how you know.

A large, empty, cloud-shaped box with a scalloped border, intended for the student to write their explanation.

Explanation that recognises that the sequence does not always increase by four, with clear reference to the data, e.g.

- The difference between 1996 and 1999 is three years, not four so it is not always every four years
- It would be 2000 if it was every 4 years
- It should have ended in 2016

OR

Explanation that demonstrates that the sequence does not always increase by 4, but does not reference specific years from the data, e.g.

- The cricket world cup was sometimes 3 years apart instead of 4 years apart
- Not all of the years have 4 years difference between.

1m

Do not accept vague or incomplete explanations, e.g.

- It does not always increase by four
- It should be 2000
- The difference can be 3, 4 or 5 years at different times.

Do not accept explanations which include incorrect mathematics or incorrect information that is relevant to the explanation, e.g.

- $1992 + 4 = 1996 + 3 = 1999$

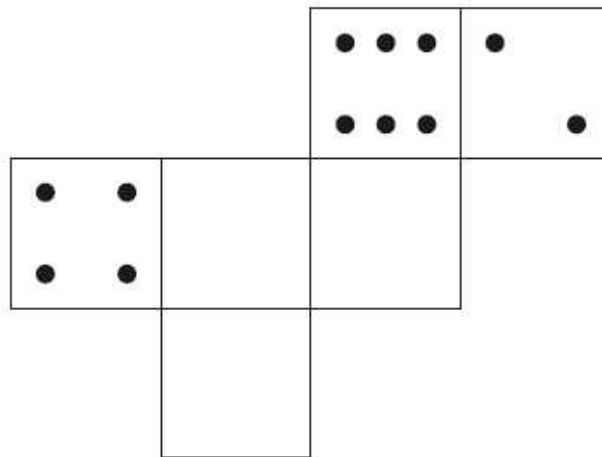
# Sample Questions

## Maths Paper 2 / Paper 3 : Reasoning

On a dice, the sum of the dots on opposite faces is always 7



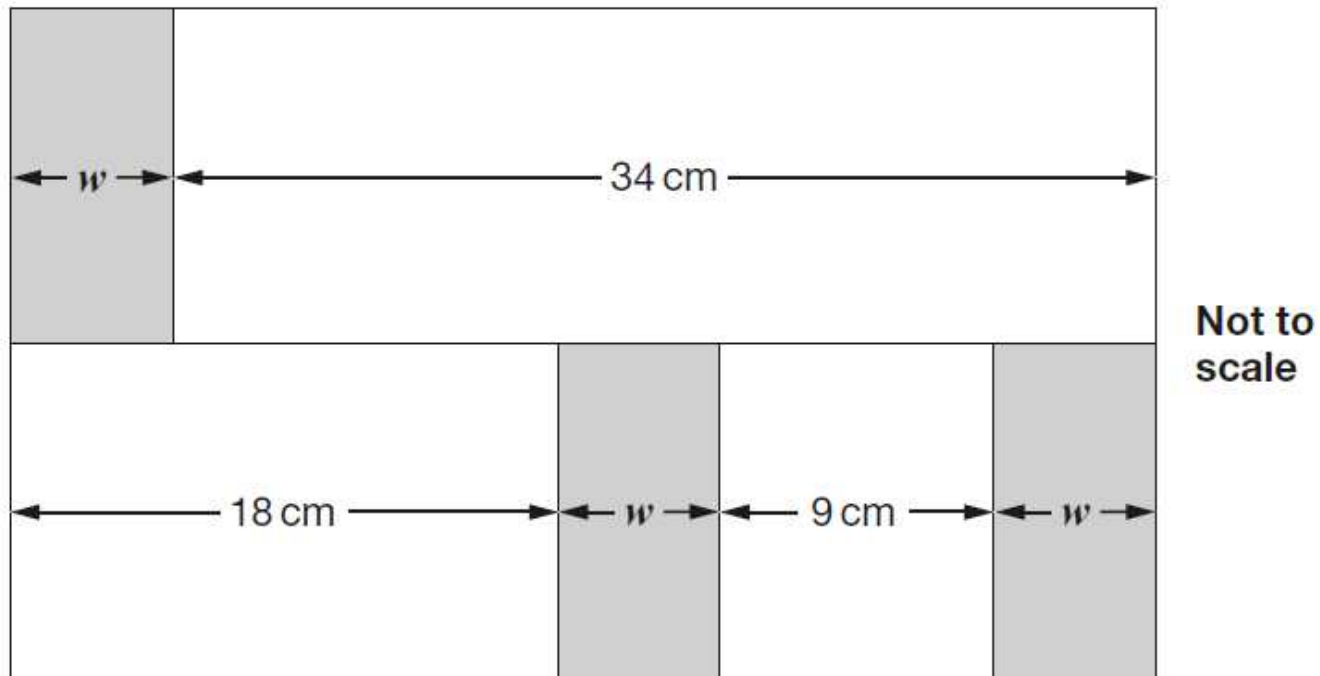
Draw dots on the three empty faces of the net so that it could fold up to make a dice.



# Sample Questions

## Maths Paper 2 / Paper 3 : Reasoning

In this diagram, the shaded rectangles are all of equal width ( $w$ ).



Calculate the width ( $w$ ) of one shaded rectangle.

# Sample Questions

## Maths Paper 2 / Paper 3 : Reasoning

A cat sleeps for **12 hours** each day.

**50%** of its life is spent asleep.



Write the missing percentage.

A koala sleeps for **18 hours** each day.

%

of its life is spent asleep.





# How is the SATs week organised?

- We can determine what time the tests begin.
- Tests papers are opened with the children.
- Tests taken in their normal classrooms with displays covered.
- Normal subject teacher will administer their sets tests .
- Support of additional adults.

# How to Help Your Child

- First and foremost, support and reassure your child that there is nothing to worry about and they should always just try their best. Praise and encourage!
- Ensure your child has the best possible attendance at school.
- Support your child with any homework tasks.
- Reading, spelling and arithmetic (e.g. times tables) are always good to practise.
- Talk to your child about what they have learnt at school and what book(s) they are reading (the character, the plot, their opinion).
- Make sure your child has a good sleep and healthy breakfast every morning!
- Attend parents' evening in the Spring term. There will be revision books that you can order in SA6 during these evenings.
- Revision hand-out (sent by Parent Mail) of useful online resources and books, on school website too.

# How to Help Your Child

- Please refrain from using previous SATs papers with your children as these will be used in Year 6 mocks.
- We will upload revision handouts on the website as the year goes on and there are CGP revision books, which can be purchased through the school – information about this will be sent out before the new year.
- We will all be able to talk to you more about SATs and things you can do at home to help prepare your child at the Spring term parents evening.