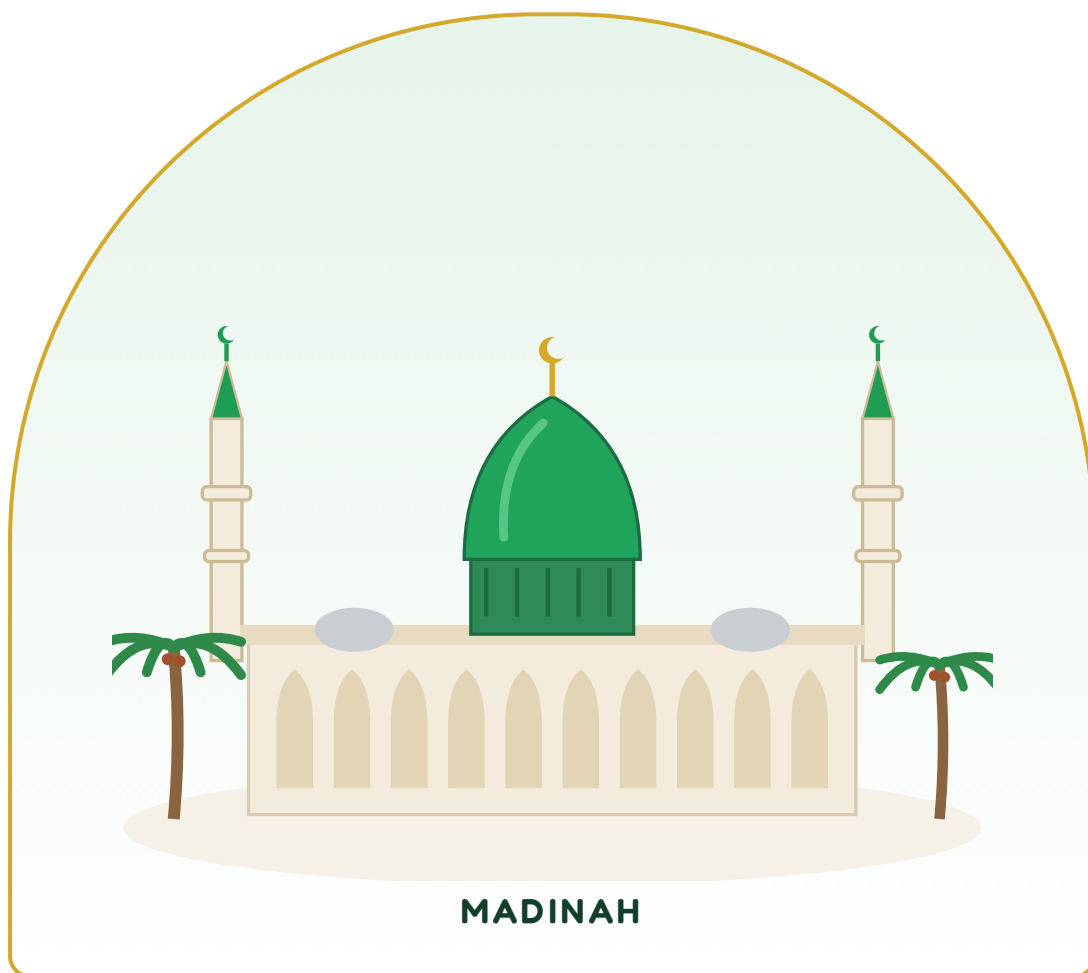




Year 6 • Term 2

SATs-style reasoning paper



Name: _____



Assalamu alaikum! I'm Adam.

This is your Year 6, Term 2 **reasoning paper**. It is set out like the real Key Stage 2 SATs paper, so you can practise under test conditions.

- Say **Bismillah** and find a quiet place to work.
- You have **40 minutes**. There are **29 questions** worth **32 marks**.
- Write your answers in the boxes. If a question says 'show your method', you may get a mark for your working.
- If you get stuck, move on and come back later.

My score

/ 32

Score	Adam says...
27+ marks	Mashallah, outstanding!
22+ marks	Alhamdulillah, great work!
16+ marks	Good effort, keep going!
0+ marks	Keep practising, insha'Allah!

For grown-ups: The reasoning paper mirrors SATs Papers 2 and 3: problem solving and reasoning in 40 minutes. Questions are neutral and SATs-style. The mark scheme is on page 9. Print on A4 at 100% scale.

*O you who believe, stand firm for justice.*

Qur'an 4:135

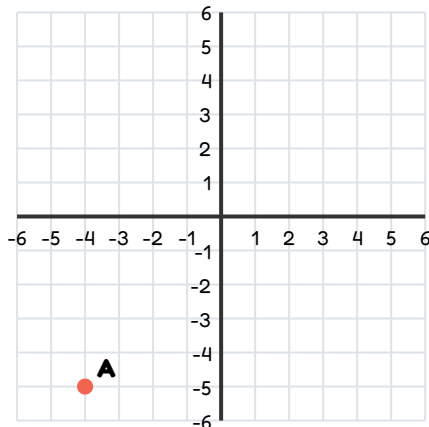
- 1 Here is part of a bus timetable.

Stop	Time
Park Road	09:05
High Street	09:31
Station	09:48
Library	10:00

How many minutes does the bus take from Park Road to the Library?

1 mark

- 2 Point A is translated 2 squares left and 3 squares down. What are the new coordinates of A?



(,)

1 mark

- 3 5 miles is about 8 km.
About how many miles is 24 km?

miles

1 mark

- 4 Write 2,219 g in kilograms.

kg

1 mark



If you are grateful, I will surely increase you.

Qur'an 14:7

- 5 Circle **all** the prime numbers.

21

23

29

37

41

57

1 mark

- 6 Calculate the size of angle x . *Not drawn accurately.*



$x =$ °

1 mark

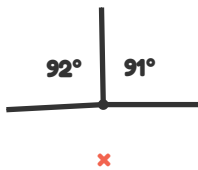
- 7 Write this number in digits.
one million one hundred and fifty-eight thousand three hundred and forty-one

1 mark

- 8 Write a number between 1 and 50 that is a multiple of 3 and a multiple of 5.

1 mark

- 9 Calculate the size of angle x . *Not drawn accurately.*



$x =$ °

1 mark

- 10 The radius of a circle is 12 cm. What is its diameter?

cm

1 mark



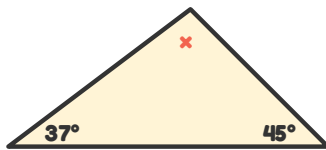
Believe in Allah and His Messenger and spend out of that in which He has made you successors.

Qur'an 57:7

- 11 At midnight the temperature was -10°C . By midday it was 12°C .
How many degrees did the temperature rise?

 $^{\circ}\text{C}$
1 mark

- 12 Calculate the size of angle x . *Not drawn accurately.*

 $x =$ $^{\circ}$

1 mark

- 13 Jack buys a book for £1.55 and a game for £2.09.
How much change from £20?

 $\pounds$
1 mark

- 14 Round 5,522,977.

	Rounded
to the nearest 10,000	
to the nearest 100,000	

2 marks



Those who spend in the way of Allah are like a seed which grows seven spikes; in each spike is a hundred grains.

Qur'an 2:261

- 15 A school orders 19 boxes of pencils. Each box has 48 pencils. 144 pencils are given out.

How many pencils are left? *Show your method.*

2 marks

- 16 Ruby buys a book for £8.90 and a game for £5.40.
How much change from £20?

£

1 mark

- 17 There are 80 children in a school choir. $\frac{3}{5}$ of them are girls.
How many boys are in the choir?

1 mark

- 18 A jacket costs £120. In a sale the price is reduced by 20%.
What is the sale price?

£

1 mark

- 19 At midnight the temperature was -7°C . By midday it was 6°C .
How many degrees did the temperature rise?

 $^{\circ}\text{C}$

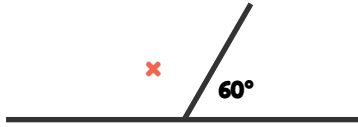
1 mark



"Shall I not tell you of something which, if you do it, you will love one another? Spread salam among yourselves."

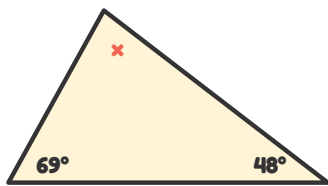
Hadith, Muslim

- 20 Calculate the size of angle x. *Not drawn accurately.*

 $x =$ °

1 mark

- 21 Calculate the size of angle x. *Not drawn accurately.*

 $x =$ °

1 mark

- 22 A cuboid is 3 cm long, 2 cm wide and 4 cm high.
What is its volume?

 cm^3

1 mark

- 23 Write a number between 1 and 50 that is a multiple of 4 and a multiple of 6.

1 mark

- 24 A school orders 18 boxes of pencils. Each box has 24 pencils. 243 pencils are given out.

How many pencils are left? *Show your method.*

2 marks



Indeed, I will make upon the earth a successive authority (khalifah).

Qur'an 2:30

- 25** Chloe buys a book for £3.22 and a game for £1.38.
How much change from £20?

£

1 mark

- 26** There are 36 children in a school choir. $\frac{5}{6}$ of them are girls.
How many boys are in the choir?

1 mark

- 27** A jacket costs £80. In a sale the price is reduced by 30%.
What is the sale price?

£

1 mark

- 28** At midnight the temperature was -11°C . By midday it was 10°C .
How many degrees did the temperature rise?

$^{\circ}\text{C}$

1 mark

- 29** Calculate the size of angle x. *Not drawn accurately.*



x = $^{\circ}$

1 mark



For grown-ups

Mark scheme

Total: 32 marks

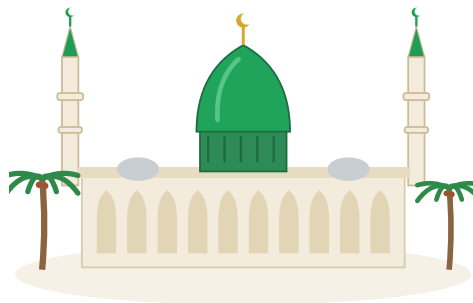
Q	Answer	Marks
1	55	1
2	$(-6, -8)$	1
3	15	1
4	2.219	1
5	23, 29, 37, 41	1
6	135°	1
7	1,158,341	1
8	15, 30, 45	1
9	177°	1
10	24 cm	1
11	22	1
12	98°	1
13	16.36	1
14	5,520,000; 5,500,000	2
15	768	2

Q	Answer	Marks
16	5.70	1
17	32	1
18	96	1
19	13	1
20	120°	1
21	63°	1
22	24 cm^3	1
23	12, 24, 36, 48	1
24	189	2
25	15.40	1
26	6	1
27	56	1
28	21	1
29	110°	1

For 2-mark questions, award 1 mark for a correct method or for one part correct. Accept equivalent answers (e.g. equivalent fractions or decimals).



Mashallah!
Maths Superstar



This is to say that

has completed **Adam's Maths – Year 6, Term 2**
Reasoning paper.

Alhamdulillah for all your hard work! May Allah bless your learning.

Signed

Date