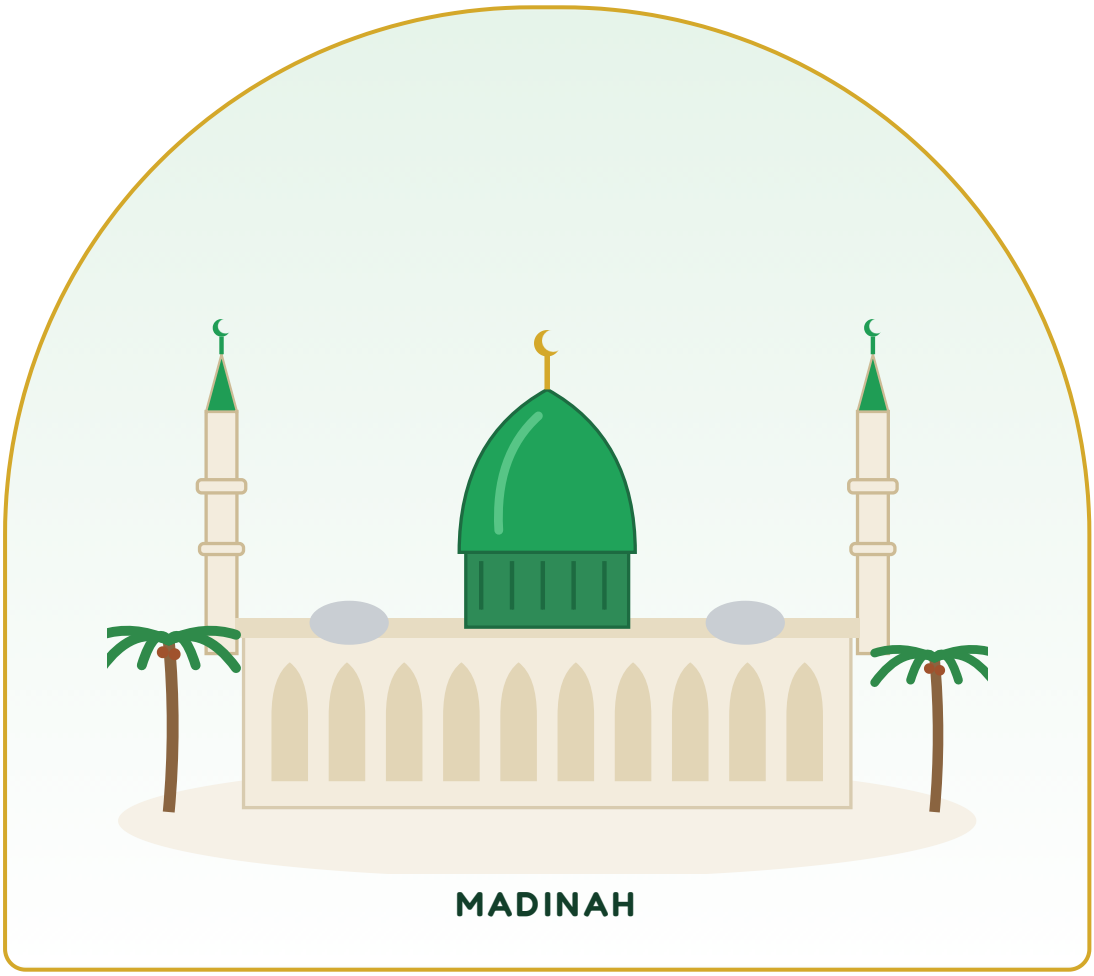
Adam's Maths

Learning, growing, alhamdulillah

Key Stage 2 · Ages 10–11

Year 6 · Term 2

SATs-style reasoning paper



Name: _____

Reasoning paper · 40 minutes · 32 marks · Mirrors the Key Stage 2 SATs format



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. More free resources at **adamsclassroom.co.uk**.

Reasoning paper

Term 2 · 40 minutes · 32 marks

O you who believe, stand firm for justice. — Qur'an 4:135

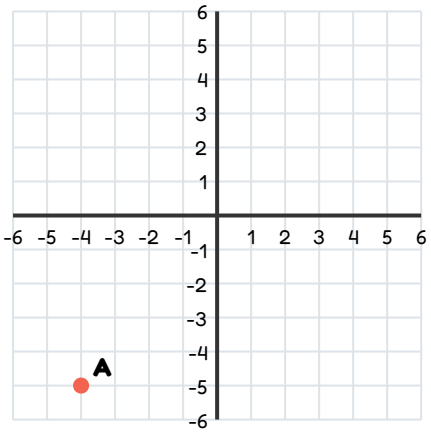
1 Here is part of a bus timetable.

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

Marks on this page: ☐

Barakallahu feek!

Reasoning paper

Term 2 · 40 minutes · 32 marks

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

____

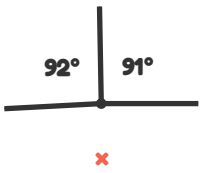
1 mark

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

Marks on this page: ____

SubhanAllah, look how you're growing!

Reasoning paper

Term 2 · 40 minutes · 32 marks

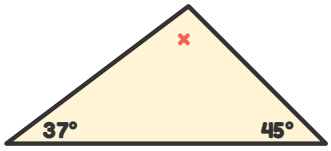
Believe in Allah and His Messenger and spend out of that in which He has made you successors. Qur'an 57:7

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

[ ] °C

1 mark

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



x = [ ] °

1 mark

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

£ [ ]

1 mark

14 Round **5,522,977**.

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

2 marks



Reasoning paper

Term 2 · 40 minutes · 32 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?

°C

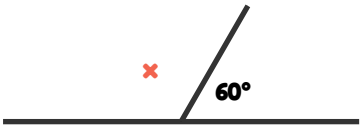
1 mark

Reasoning paper

Term 2 · 40 minutes · 32 marks

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

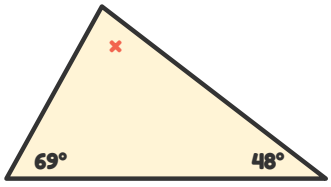
20 Calculate the size of angle x. *Not drawn accurately.*



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

Reasoning paper

Term 2 · 40 minutes · 32 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?

£ ____

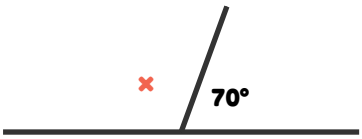
1 mark

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

____ °C

1 mark

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



x = ____ °

1 mark

Marks on this page: ____

Mashallah, you're a star!



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

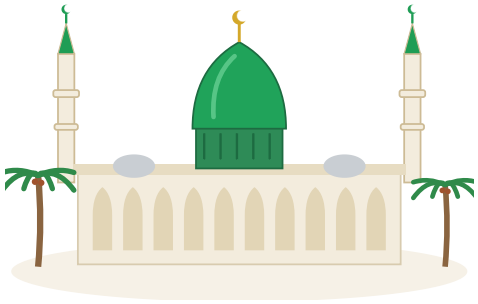
Q	Answer	Marks
16	5.70	1
17	32	1
18	96	1
19	13	1
20	120°	1
21	63°	1
22	24 cm^3	1
23	12, 24, 36, 48	1
24	189	2
25	15.40	1
26	6	1
27	56	1
28	21	1
29	110°	1

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**