Adam's Maths

Learning, growing, alhamdulillah

Key Stage 2 · Ages 10–11

Year 6 · Term 3

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 3 **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**.



Bismillah · Adam's Maths · Year 6 · Term 3 · Masjid al-Aqsa

Reasoning paper

Term 3 · 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

1 Write these in order, starting with the smallest.

62% | $\frac{7}{10}$ | $\frac{3}{5}$ | **0.65**

[ ] [ ] [ ] [ ]

1 mark

2 Here are the scores of 5 players: **37, 36, 48, 45, 49**.
What is the mean score?

[ ]

1 mark

3 A cuboid is 9 cm long, 6 cm wide and 5 cm high.
What is its volume?

[ ] cm^3

1 mark

4 Sam buys a book for £3.09 and a game for £6.36.
How much change from £20?

£ [ ]

1 mark

5 Write a number between 1 and 50 that is a multiple of **4** and a multiple of **10**.

[ ]

1 mark

6 A rectangle has an area of 192 cm^2. Its width is 8 cm.
What is its perimeter?

[ ] cm

1 mark



Reasoning paper

Term 3 · 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

7 Here is part of a bus timetable.

Stop	Time
Park Road	08:35
High Street	08:47
Station	08:59
Library	09:22

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

1 mark

8 Priya and a friend share 72 stickers in the ratio 4 : 5.
How many stickers does each person get?

☐ and ☐

2 marks

9 There are 90 children in a school choir. $\frac{2}{6}$ of them are girls.
How many boys are in the choir?

☐

1 mark

10 A jacket costs £240. In a sale the price is reduced by 25%.
What is the sale price?

£ ☐

1 mark

11 Here is a sequence: **6, 11, 16, 21, ...**
What is the 20th term?

☐

1 mark



Reasoning paper

Term 3 · 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

12 Write this number in digits.

two million five hundred and fifty-six thousand three hundred and twenty-five

1 mark

13 A school orders 22 boxes of pencils. Each box has 48 pencils. 193 pencils are given out.

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

2 marks

14 Sam buys a book for £3.64 and a game for £6.77.

How much change from £20?

£

1 mark

15 There are 48 children in a school choir. $\frac{6}{8}$ of them are girls.

How many boys are in the choir?

1 mark

16 A jacket costs £240. In a sale the price is reduced by 15%.

What is the sale price?

£

1 mark

Marks on this page:

Mashallah, brilliant work!

Reasoning paper

Term 3 · 40 minutes · 32 marks

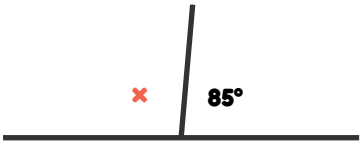
Indeed, I will make upon the earth a successive authority (khalifah). Qur'an 2:30

17 At midnight the temperature was -3°C. By midday it was 6°C.
How many degrees did the temperature rise?

_____ °C

1 mark

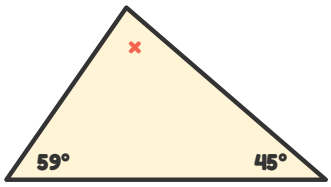
18 Calculate the size of angle x. *Not drawn accurately.*



x = _____ °

1 mark

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



x = _____ °

1 mark

20 A cuboid is 6 cm long, 6 cm wide and 5 cm high.
What is its volume?

_____ cm^3

1 mark

21 Write a number between 1 and 50 that is a multiple of **4** and a multiple of **10**.

_____

1 mark

Marks on this page: _____

Alhamdulillah for learning!



Reasoning paper

Term 3 · 40 minutes · 32 marks

My Lord, increase me in knowledge. Qur'an 20:114

22 A school orders 34 boxes of pencils. Each box has 48 pencils. 228 pencils are given out.
How many pencils are left? *Show your method.*

2 marks

23 Noah buys a book for £3.34 and a game for £3.50.
How much change from £20?

£

1 mark

24 There are 128 children in a school choir. $\frac{6}{8}$ of them are girls.
How many boys are in the choir?

1 mark

25 A jacket costs £120. In a sale the price is reduced by 30%.
What is the sale price?

£

1 mark

26 At midnight the temperature was -4°C. By midday it was 12°C.
How many degrees did the temperature rise?

°C

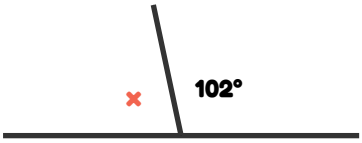
1 mark

Reasoning paper

Term 3 · 40 minutes · 32 marks

O you who believe, seek help through patience and prayer. Indeed, Allah is with the patient. Qur'an 2:153

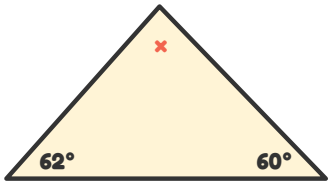
27 Calculate the size of angle x. *Not drawn accurately.*



x = ☐°

1 mark

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



x = ☐°

1 mark

29 A cuboid is 12 cm long, 6 cm wide and 4 cm high.
What is its volume?

☐ cm^3

1 mark



For grown-ups

Mark scheme

Total: 32 marks

Q	Answer	Marks
1	3/5, 62%, 0.65, 7/10	1
2	43	1
3	270 cm^3	1
4	10.55	1
5	20, 40	1
6	64 cm	1
7	47	1
8	32 and 40	2
9	60	1
10	180	1
11	101	1
12	2,556,325	1
13	863	2
14	9.59	1
15	12	1

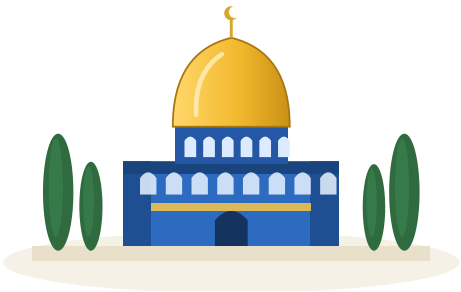
Q	Answer	Marks
16	204	1
17	9	1
18	95°	1
19	76°	1
20	180 cm^3	1
21	20, 40	1
22	1,404	2
23	13.16	1
24	32	1
25	84	1
26	16	1
27	78°	1
28	58°	1
29	288 cm^3	1

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 3 Reasoning paper**.
Alhamdulillah for all your hard work! May Allah bless your learning.

_____ _____

Signed **Date**