MATHS PRACTICE PAPER 9

GL Assessment®

Pupil's Name

School Name

DATE OF TEST

Day	Month	Year

UNIQUE PUPIL NUMBER

SCHOOL NUMBER

DATE OF BIRTH

Day	Month	Year

Please mark boxes with a thin horizontal line like this ▬.

1
- 7.5
- 8
- 8.5
- 9
- 9.5

2
- 4000
- 3000
- 3700
- 3600
- 3670

3
- 01:00 – 04:00
- 04:00 – 07:00
- 07:00 – 10:00
- 10:00 – 13:00
- 13:00 – 16:00

4
- $\frac{1}{50}$
- $\frac{1}{25}$
- $\frac{2}{75}$
- $\frac{3}{50}$
- $\frac{1}{75}$

5
- 2958
- 2848
- 2969
- 2968
- 2858

6
- 1
- 2
- 3
- 4
- 5

7
- February
- April
- July
- September
- October

8
- 1 km
- 100 km
- 25 km
- 10 km
- 12.5 km

9
- 28
- 30
- 38
- 40
- 42

10
- 9.7 cm
- 13.3 cm
- 12.13 cm
- 11.4 cm
- 12.3 cm

11
- Amina
- Baljit
- Caryl
- Dylan
- Elliot

12
- 57.54
- 58.92
- 58.82
- 58.72
- 58.64

13
- £8.60
- £11.70
- £8.49
- £12.65
- £11.41

14
- A
- B
- C
- D
- E

15
- 2.47 m, 2.24 m, 240 cm, 222 cm, 2.2 m
- 2.47 m, 240 cm, 2.24 m, 222 cm, 2.2 m
- 240 cm, 222 cm, 2.47 m, 2.24 m, 2.2 m
- 2.2 m, 222 cm, 2.24 m, 240 cm, 2.47 m
- 2.47 m, 2.2 m, 2.24 m, 240 cm, 222 cm

16
- 0.85 seconds, 0.93 seconds
- 0.39 seconds, 0.47 seconds
- 0.83 seconds, 0.06 seconds
- 0.39 seconds, 0.08 seconds
- 0.85 seconds, 0.08 seconds

17
- £2.00
- £1.60
- £0.50
- £0.32
- £1.20

18
- 170 ml
- 65 ml
- 115 ml
- 85 ml
- 135 ml

19
- £0.32
- £0.80
- £1.25
- £3.20
- £8.00

20
- A
- B
- C
- D
- E

21
- 3524
- 3744
- 2744
- 3724
- 3644

22
- 7
- 10
- 17
- 20
- 27

23
- £22.05
- £11.95
- £11.05
- £12.05
- £21.95

24
- 20
- 40
- 60
- 80
- 100

25
- 487
- 553
- 809
- 241
- 764

26
- 81
- 18
- 3
- 6
- 2

27
- A
- B
- C
- D
- E

28
- 0.937 m
- 1.00 m
- 0.100 m
- 1.63 m
- 0.793 m

29
- 300
- 3000
- 1000
- 30 000
- 30

30
- 2
- 3
- 4
- 5
- 6

31
- Highborough, Greyholme, Freeburgh
- Greyholme, Freeburgh, Highborough
- Freeburgh, Highborough, Greyholme
- Greyholme, Highborough, Freeburgh
- Highborough, Freeburgh, Greyholme

32
- 25 m
- 27 m
- 26 m
- 25.5 m
- 27.5 m

33
- 11:12
- 11:49
- 11:36
- 11:52
- 11:09

34
- 30p
- 10p
- £3
- 20p
- 50p

35
- 38 m
- 28 m
- 19 m
- 29 m
- 25 m

36
- 20
- 21
- 40
- 42
- 48

37
- rectangle
- trapezium
- square
- parallelogram
- pentagon

38
- 36
- 144
- 72
- 160
- 40

39
- 11.5 minutes
- 9.9 minutes
- 7.2 minutes
- 23.4 minutes
- 28.0 minutes

40
- 69 m, $\frac{63}{100}$ km, 0.67 km
- $\frac{63}{100}$ km, 0.67 km, 69 m
- 0.67 km, 69 m, $\frac{63}{100}$ km
- $\frac{63}{100}$ km, 69 m, 0.67 km
- 69 m, 0.67 km, $\frac{63}{100}$ km

41
- A
- B
- C
- D
- E

42
- 08:05, 16:30
- 07:50, 16:15
- 08:00, 16:30
- 07:35, 16:20
- 07:45, 16:35

43
- 19.95 to 20.05
- 19.9 to 20.1
- 19.995 to 20.005
- 19.5 to 20.5
- 19.99 to 20.01

44
- A
- B
- C
- D
- E

45
- 36°
- 54°
- 60°
- 45°
- 72°

46
- A
- B
- C
- D
- E

47
- 42
- 11
- 26
- 49
- 30

48
- 1.995 2.005
- 1.99 2.01
- 1.95 2.05
- 1.9 2.1
- 1.5 2.5

49
- 136°
- 114°
- 126°
- 116°
- 124°

50
- 10
- 7
- 9
- 5
- 4

END OF TEST

Practice Paper 9

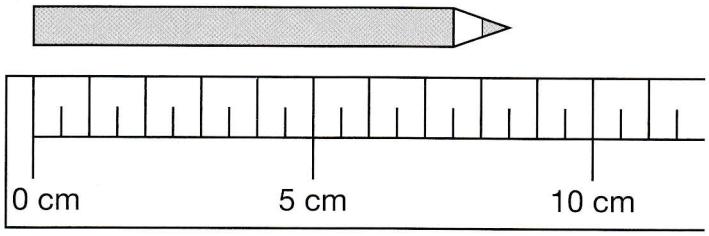
Mathematics

Read the following carefully:

1. **Do not open or turn over the page in this booklet until you are told to do so.**
2. This is a multiple-choice test in which you have to mark your answer to each question on the separate answer sheet. You should mark only one answer for each question.
3. Draw a firm line clearly through the rectangle next to your answer like this  . If you make a mistake, rub it out as completely as you can and put in your new answer.
4. Be sure to keep your place on the answer sheet. Mark your answer in the box that has the same number as the question.
5. You may not be able to finish all the questions, but try to do as many as you can. If you cannot do a question, **do not waste time on it but go on to the next**. If you are not sure of an answer, choose the one you think is best.
6. You may do any rough working on a separate sheet of paper.
7. **Work as quickly and as carefully as you can.**
8. You will have **50 minutes** to do the test.

GL Assessment®

1



How long is this pencil?

A 7.5 cm **B** 8 cm **C** 8.5 cm **D** 9 cm **E** 9.5 cm

2

What is 3672 rounded to the nearest hundred?

A 4000 **B** 3000 **C** 3700 **D** 3600 **E** 3670

3

This is part of a screen showing the weather recorded over 24 hours in May.

Time	Weather	Temp
01:00		13°C
04:00		13°C
07:00		14°C
10:00		18°C
13:00		20°C
16:00		22°C

In which three-hour period did the temperature rise the most?

A 01:00 – 04:00
B 04:00 – 07:00
C 07:00 – 10:00
D 10:00 – 13:00
E 13:00 – 16:00

Please go on to the next page >>>

4 Rory had 150 stickers.
He divided them into eight piles, with the same number in each pile.

What fraction of the stickers was left over?

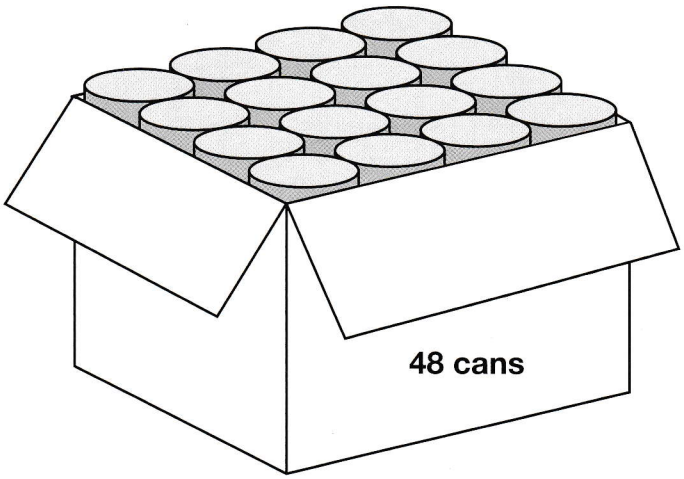
A $\frac{1}{50}$ **B** $\frac{1}{25}$ **C** $\frac{2}{75}$ **D** $\frac{3}{50}$ **E** $\frac{1}{75}$

5 Fordbridge has three schools.
There are 1248 pupils at Wayford School, 719 at River Road School and 991 at Dunton School.

How many pupils are there in Fordbridge altogether?

A 2958 **B** 2848 **C** 2969 **D** 2968 **E** 2858

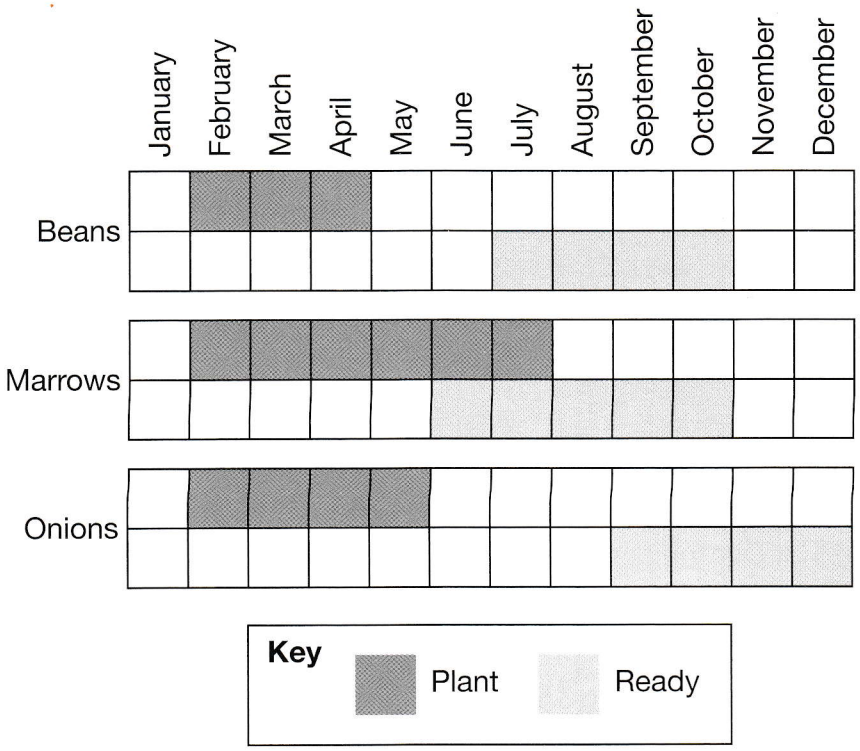
6 This carton contains 48 cans.



How many layers of cans does it contain?

A 1 **B** 2 **C** 3 **D** 4 **E** 5

7



The chart shows when you can plant some different types of vegetable and when they will be ready to eat.

Which is the last month when you can plant all three types of vegetable?

A February **B** April **C** July **D** September **E** October

8

The 10 000 m race is 25 laps of a 400 m track.
Kirsty came second in the race.

How many kilometres did she run?

A 1 km **B** 100 km **C** 25 km **D** 10 km **E** 12.5 km

9

Look at this sequence:

2 6 12 20 _____ _____

What is the 6th number in this sequence?

A 28 **B** 30 **C** 38 **D** 40 **E** 42

10

Four books are piled on top of each other.
Their spines are 4 cm, 5.1 cm, 2.3 cm and 1.9 cm thick.

How high is the pile of books?

A 9.7 cm **B** 13.3 cm **C** 12.13 cm **D** 11.4 cm **E** 12.3 cm

11

Five swimmers were tested on strength, co-ordination, stamina and speed at the beginning and end of a course.
The table below shows their results.

	Strength		Co-ordination		Stamina		Speed		
	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Overall Change
Amina	1	4	3	2	4	5	4	4	+3
Baljit	2	3	3	5	1	2	2	4	+6
Caryl	3	3	4	3	2	4	2	3	+2
Dylan	3	3	2	3	1	4	4	3	+3
Elliot	4	3	5	5	3	5	4	4	+1

Key:
5 points = Excellent
4 points = Good
3 points = Competent
2 points = Poor
1 point = Very Poor

Which swimmer improved by the greatest number of points for stamina?

A Amina
B Baljit
C Caryl
D Dylan
E Elliot

Please go on to the next page >>>

12 **64.64 – 6.46 + 0.64 = _____**

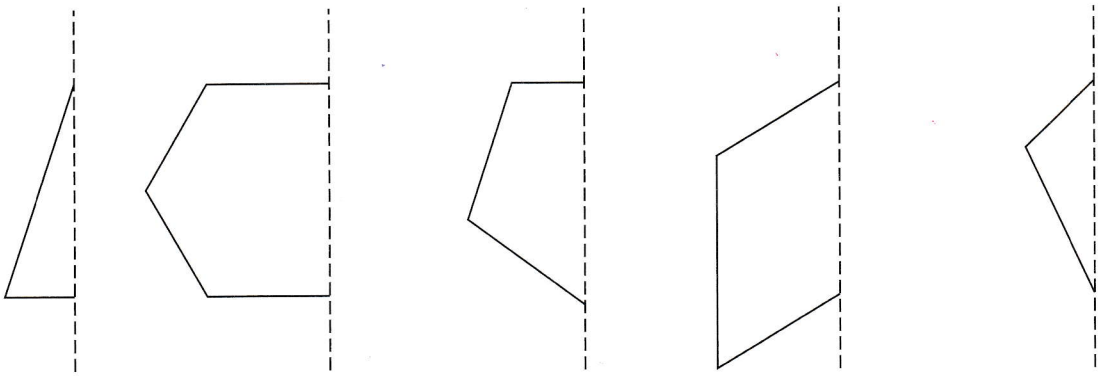
A 57.54 **B** 58.92 **C** 58.82 **D** 58.72 **E** 58.64

13 Meena buys a present for a friend.
She picks the one that is closest to £10.

How much does she spend?

A £8.60 **B** £11.70 **C** £8.49 **D** £12.65 **E** £11.41

14 **When reflected in the mirror line, which shape becomes a regular polygon?**



A **B** **C** **D** **E**

15

Put these lengths in order, starting with the largest:

2.2 m

240 cm

2.24 m

222 cm

2.47 m

A	2.47 m	2.24 m	240 cm	222 cm	2.2 m
B	2.47 m	240 cm	2.24 m	222 cm	2.2 m
C	240 cm	222 cm	2.47 m	2.24 m	2.2 m
D	2.2 m	222 cm	2.24 m	240 cm	2.47 m
E	2.47 m	2.2 m	2.24 m	240 cm	222 cm

16

These times are four athletes' results in a 100 m race:

13.41 seconds 13.02 seconds 12.94 seconds 12.09 seconds

What are the differences between the 1st and 2nd positions, and between the 1st and 3rd positions?

A 0.85 seconds, 0.93 seconds
B 0.39 seconds, 0.47 seconds
C 0.83 seconds, 0.06 seconds
D 0.39 seconds, 0.08 seconds
E 0.85 seconds, 0.08 seconds

17

Paul spent 80% of his pocket money on a model car.
He now has 40p left.

How much did the car cost?

A £2.00 **B** £1.60 **C** £0.50 **D** £0.32 **E** £1.20

Please go on to the next page >>>

18

Mrs Hall uses a fruit juicer.
On average, one grapefruit and two oranges produce 300 ml of juice.
The grapefruit alone produces 130 ml.

How much juice does an average orange produce?

A 170 ml **B** 65 ml **C** 115 ml **D** 85 ml **E** 135 ml

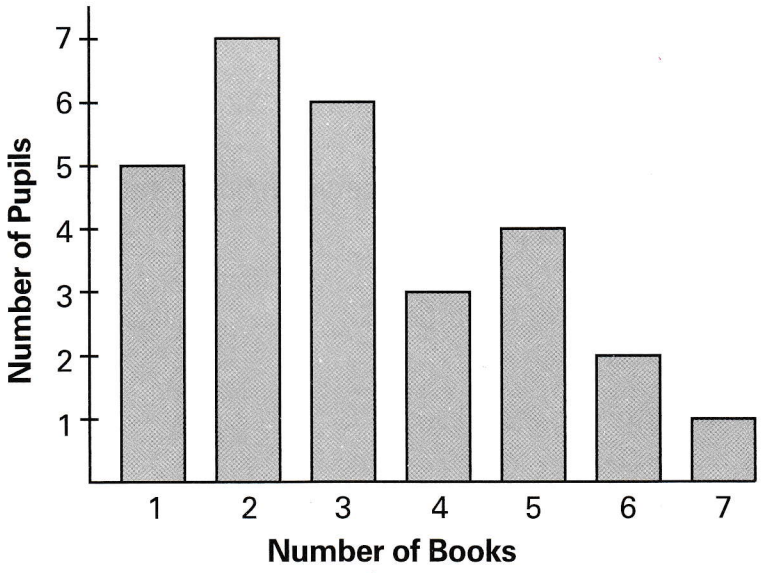
19

A garden centre bought 200 plants for £160.

What was the cost of one plant?

A £0.32 **B** £0.80 **C** £1.25 **D** £3.20 **E** £8.00

20



Pupils in Mrs Soper's class read between 1 and 7 books last month, as shown in the bar chart above.

Which one of these statements is NOT true?

A 4 pupils read 5 books each.
B Less than half of the pupils read at least 3 books each.
C 3 pupils read 4 books each.
D There were 28 pupils in Mrs Soper's class.
E The total number of books read by the pupils was greater than 50.

21

A shop ordered 12 cartons of pencils on Wednesday and 14 cartons on Thursday. Each carton contained 144 pencils.

How many pencils did the company order altogether?

A 3524 **B** 3744 **C** 2744 **D** 3724 **E** 3644

22

The table below shows part of the timetable for a boat service along the River Thames in London.

Embankment		0727		0757		0817	0827
London Eye		0730		0800		0820	0830
Blackfriars		0737		0807		0827	0837
London Bridge City	0727	0742	0757	0812	0822	0832	0842
Tower		0746		0816		0836	0846
Canary Wharf	0737	0755	0807	0825	0832	0845	0855
Greenwich		0802		0832		0852	0902
QEII		0810		0840		0900	0910
Woolwich Arsenal		0817		0847			0917

Tom arrives at London Bridge City at quarter past eight.

How many minutes must he wait for the next boat to Woolwich Arsenal?

A 7 **B** 10 **C** 17 **D** 20 **E** 27

23

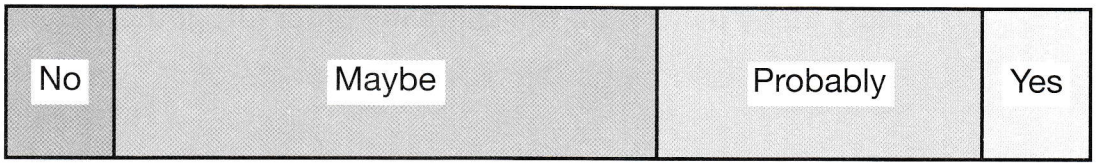
Trevor has £100.
He buys five toys costing £19.99, £9.99, £14.99, £34.99 and £7.99.

How much money does Trevor have left?

A £22.05 **B** £11.95 **C** £11.05 **D** £12.05 **E** £21.95

24

Alexis asked a hundred people whether they would go on holiday this year.
The diagram below shows her results.



Roughly how many people were unsure whether or not they would go on holiday?

A 20 **B** 40 **C** 60 **D** 80 **E** 100

25

The sum of three whole numbers is 1000.
One of the numbers is between 275 and 325.
Another of the numbers is between 225 and 275.

Which of these could be the third number?

A 487 **B** 553 **C** 809 **D** 241 **E** 764

26

A number is firstly squared, then divided by 10, then reduced by 2.
The number ends up as –1.1.

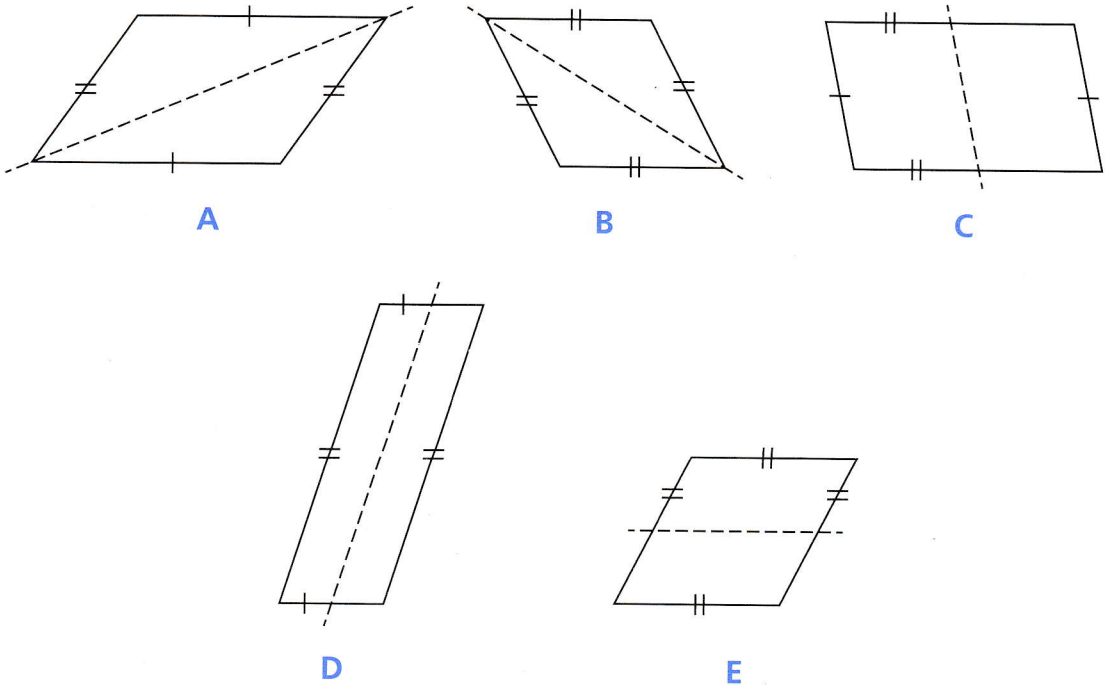
What was the number at the start?

A 81 **B** 18 **C** 3 **D** 6 **E** 2

Please go on to the next page >>>

27

In these five parallelograms, sides of equal length have been marked.



In which one is the dotted line a line of symmetry?

28

On sports day, Martin beat Philip by seven tenths of a metre.
Philip beat Carl by ninety-three hundredths of a metre.

By how many metres did Martin beat Carl?

A 0.937 m **B** 1.00 m **C** 0.100 m **D** 1.63 m **E** 0.793 m

29

Surinder's ruler measures 30 cm.
He wonders how many rulers would be needed to make 1 kilometre.

Which of these is the best estimate of the number of rulers needed?

A 300 **B** 3000 **C** 1000 **D** 30 000 **E** 30

30

8	9	9	9	9	9

Craig uses these six number cards to make two numbers with three digits, for example 989 and 999.

How many different versions of this inequality can Craig make?

A 2 **B** 3 **C** 4 **D** 5 **E** 6

31

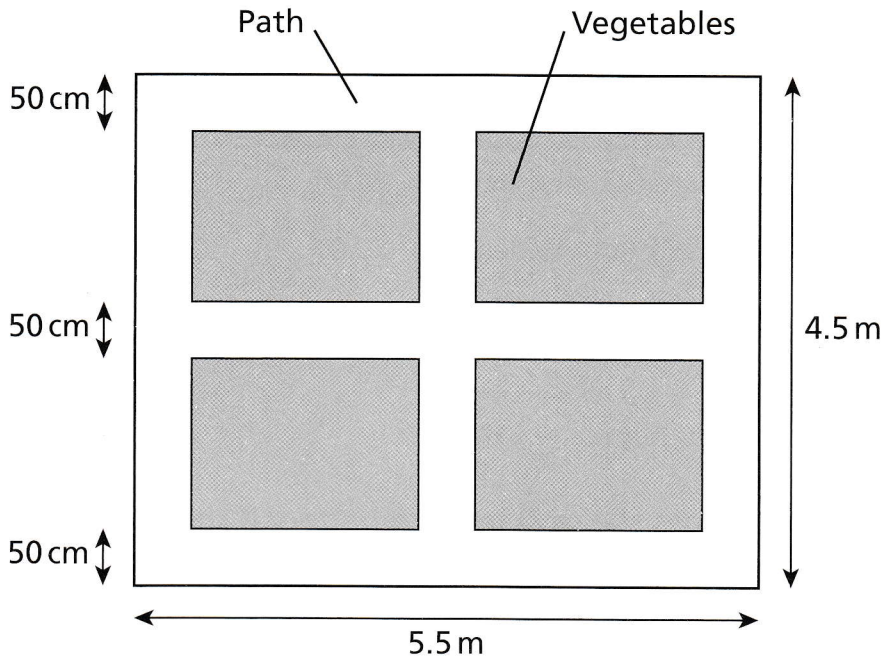
Town	Population
Freeburgh	A quarter of a million
Greyholme	25 900
Highborough	Two hundred and fifty-three thousand

The table shows the population of three towns.

Which of the following shows the towns arranged in order of the size of their populations, starting with the smallest?

A Highborough, Greyholme, Freeburgh
B Greyholme, Freeburgh, Highborough
C Freeburgh, Highborough, Greyholme
D Greyholme, Highborough, Freeburgh
E Highborough, Freeburgh, Greyholme

32



This plan shows a vegetable garden.
The width of the path is 50 cm throughout.

Calculate the total length of the path.

A 25 m **B** 27 m **C** 26 m **D** 25.5 m **E** 27.5 m

33

In a riding competition, the horses started at three-minute intervals.
The first horse started at 10:45.
The 18th horse took 13 minutes to complete the course.

At what time did the 18th horse finish?

A 11:12 **B** 11:49 **C** 11:36 **D** 11:52 **E** 11:09

Please go on to the next page >>>

34

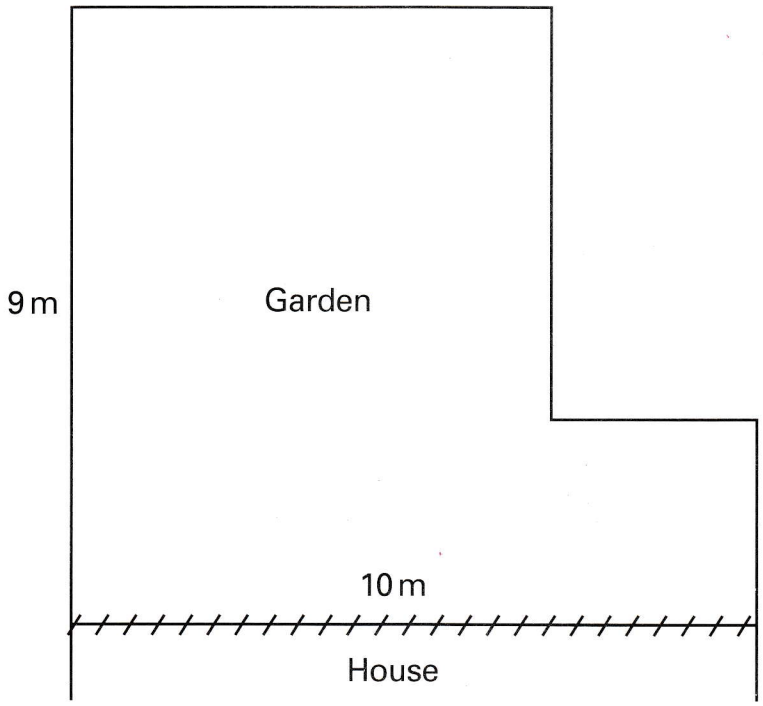
	Price per pack	
Pack size	**1 pack**	**3 packs**
Standard (2 batteries)	£3.00	£2.80
Multipack (4 batteries)	£5.60	£4.50
Saverpack (6 batteries)	£7.20	£6.00

Jessica wants to buy some batteries.

How much does she save on each battery if she buys three Saverpacks instead of standard packs of batteries as single packs?

A £0.30 **B** £0.10 **C** £3.00 **D** £0.20 **E** £0.50

35



Mrs Evans needs to put a fence around her back garden.

How much fencing must she buy?

A 38 m **B** 28 m **C** 19 m **D** 29 m **E** 25 m

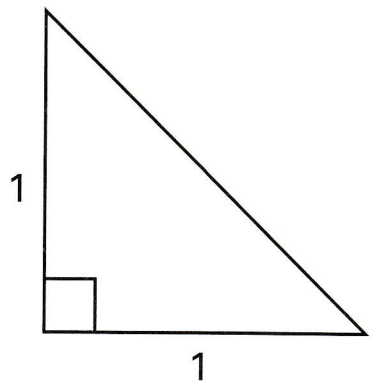
36

A straight path is 4 metres long.
Flowers are planted at 20 cm intervals along both sides of the path, up to the ends.

How many flowers are needed?

A 20 **B** 21 **C** 40 **D** 42 **E** 48

37

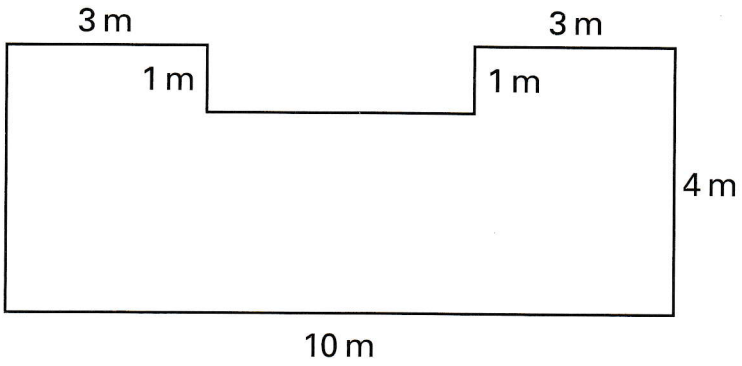


An isosceles right-angled triangle with sides of length 1 and area $\frac{1}{2}$ is shown above.

If six of these triangles are put together to form a shape with area 3, which of these CANNOT be the shape they form?

A rectangle
B trapezium
C square
D parallelogram
E pentagon

38



This is a plan of the patio at the back of Mr Duncan's house.
He wishes to lay down new paving stones.
Each stone measures 50 cm by 50 cm.

How many stones does he need?

A 36 **B** 144 **C** 72 **D** 160 **E** 40

39

The times of the four runners on the blue team were $11\frac{1}{2}$ minutes, $\frac{3}{12}$ hour, 0.3 hours and 20.4 minutes.
The total times for the four runners on the red team was 55 minutes.

How many minutes longer was the total time of the blue team than the red team?

A 11.5 minutes

B 9.9 minutes

C 7.2 minutes

D 23.4 minutes

E 28.0 minutes

40

Starting with the smallest, arrange these distances in order of size.

A 69 m, $^{63}/_{100}$ km, 0.67 km

B $^{63}/_{100}$ km, 0.67 km, 69 m

C 0.67 km, 69 m, $^{63}/_{100}$ km

D $^{63}/_{100}$ km, 69 m, 0.67 km

E 69 m, 0.67 km, $^{63}/_{100}$ km

41

Which one of these statements is NOT true?

A A trapezium always has 2 sides of equal length.

B A rhombus has 2 pairs of parallel sides.

C All squares have 4 lines of symmetry.

D One interior angle in a quadrilateral may be reflex.

E A parallelogram has opposite angles of equal size.

42

This is part of a bus timetable showing the times that a bus arrives at two stops (Home and School).

Bus Times

Home	07:05
	then every 15 min
School	07:45

School	07:15
	then every 15 min
Home	07:55

Saima walks for 5 minutes to the bus stop and catches the bus to school.
She starts school at 8.50 am and finishes at 3.35 pm.

What is the latest time she can leave home and the earliest time she can arrive back home?

A 08:05, 16:30
B 07:50, 16:15
C 08:00, 16:30
D 07:35, 16:20
E 07:45, 16:35

43

Mr Marshall measured the length of his garden.
It was 20 metres to the nearest tenth of a metre.

Between what limits was the actual length?

A 19.95 to 20.05
B 19.9 to 20.1
C 19.995 to 20.005
D 19.5 to 20.5
E 19.99 to 20.01

Please go on to the next page >>>

44

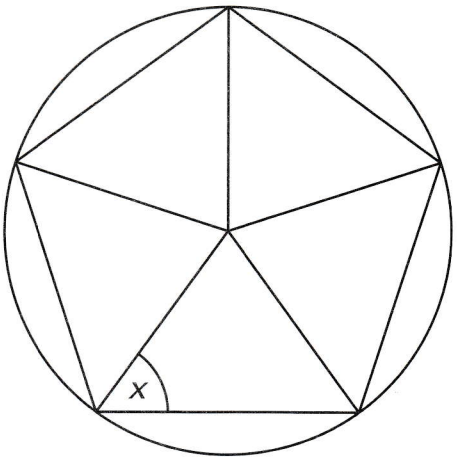
Charlotte is setting a problem for 'Find the Number!'
She wants the number to be 25.
Her first two clues are:

Clue 1: The number is a factor of 200.
Clue 2: The number is a multiple of 25.

What should her third clue be to completely identify the number?

A The number is a square number.
B The number is an even number.
C The number is a two-digit number.
D The number is an odd number.
E The number is a prime number.

45



Jodie has five identical triangles.
She fits them into a circle as shown above.

What is the size of the angle marked *x*?

A 36° **B** 54° **C** 60° **D** 45° **E** 72°

Please go on to the next page >>>

46

Which statement is NOT true?

A A rhombus is a parallelogram.
B A square is a rectangle.
C A trapezium has 1 pair of parallel sides.
D A rhombus has 2 lines of symmetry.
E A square is not a rhombus.

47

Which one of these numbers has exactly two different prime factors?

42 11 26 49 30

A 42 **B** 11 **C** 26 **D** 49 **E** 30

48

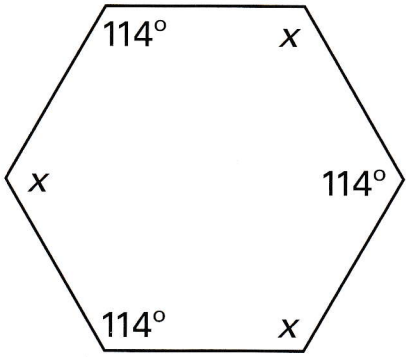
A bag of apples weighs 2 kg to the nearest 100 g.

Complete this statement:

The actual weight of apples in the bag is between _____ kg and _____ kg.

A 1.995 2.005
B 1.99 2.01
C 1.95 2.05
D 1.9 2.1
E 1.5 2.5

49



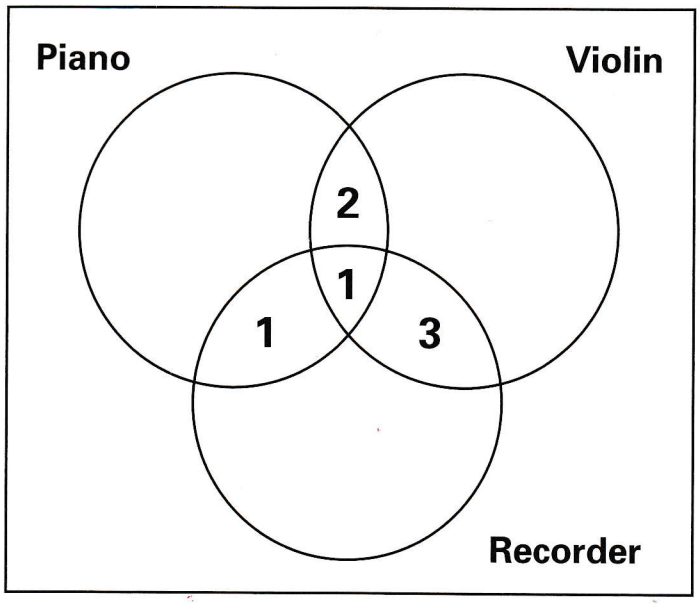
In this hexagon, the three angles marked with x are the same size.

What is the size of each of these angles?

A 136° **B** 114° **C** 126° **D** 116° **E** 124°

50

Two-thirds of the children in a class of 21 play at least one musical instrument.
5 play the piano; 7 play the violin.
Some of this information is shown in the diagram below.



How many play the recorder?

A 10 **B** 7 **C** 9 **D** 5 **E** 4