Chuckra 11+ Maths Paper 2

1 The table below shows how many people like which each type of sweet. How many people like chocolate?

☺ = 50 People

Type of Sweet	
Chocolate	☺ ☺ ☺ ☺ ☺ ☺
Boiled sweets	☺ ☺ ☺
Jelly sweets	☺ ☺
Fizzy sweets	☺ ☺
Liquorice	☺

6 | 30 | 50 | 300 | 3000

2 There are 826 pupils at a school. Of these, 528 pupils go on a holiday in the summer. How many pupils don't go on holiday in the summer?

158 | 198 | 298 | 302 | 358

3 Which object is most likely to be about 2m tall?

A stool | A chair | A table | A cooker | A door

4 In 2005, 28 pupils went on the school skiing trip. In 2006 twice as many pupils went and in 2007 there were 14 more pupils on the trip than in 2006. How many pupils went on the trip in 2007?

28 | 42 | 56 | 70 | 84

5 Which number is divisible by both 2 and 5?

5 | 25 | 50 | 52 | 225

6 Jason pays £5.80 towards a café bill of £9.02. How much remains for his friend to pay?

£2.18 | £3.18 | £3.22 | £4.18 | £4.22

7 Which is the highest temperature?

25^oC | -13^oC | 0^oC | 5^oC | -32^oC

8 Below are sets of three numbers. Which set has only numbers that are multiples of both 2 and 3?

8, 9, 10 | 9, 10, 20 | 10, 12, 16 | 12, 18, 24 | 16, 21, 30

9 The vending machine contains 200 drinks.
The table shows the flavours of still drinks and fizzy drinks.
How many containers of still orange are there?

	Orange	Apple	Blackcurrant
Still	?	36	41
Fizzy	18	48	43

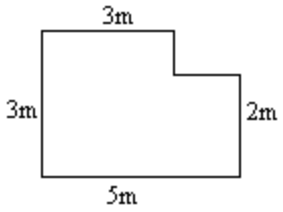
4 | 14 | 24 | 34 | 44

.

10 Marc, Dafydd and Enfys all chose sweets worth £1.25 at the shop. Their mother paid with a £5 note. Which of these is the correct change?

£0.25	£0.75	£1.25	£1.75	£2.25

11 The diagram below shows the plan of a room. What is the perimeter of the room?



2m	5m	8m	13m	16m

12 Which of the five letters shown below has two lines of reflective symmetry?

L Z E N H

L	Z	E	N	H

13 Torches are packaged in small boxes, each containing 8 torches. There are 112 torches. How many boxes are needed to pack them all?

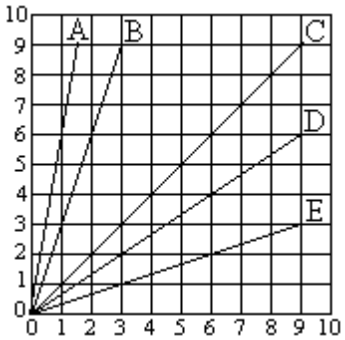
8	10	12	14	16

14 This machine multiplies numbers by 3 and then adds 5. Which number has been put in?



3	5	7	9	11

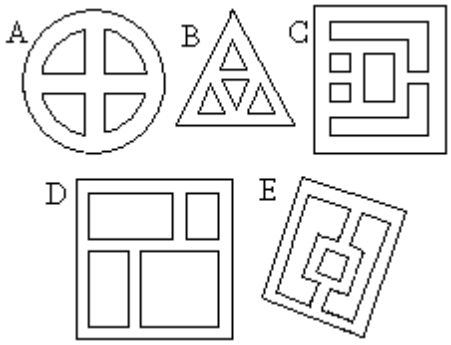
15 This graph shows five lines. Which line represents the relation y = 3x?



A	B	C	D	E

.

16 Juliet and her friends are delivering leaflets around the local housing estates.
Juliet wants to choose a housing estate where she won't have to walk down the same street more than once (she can pass over the same corners more than once). On which of these street layouts is this possible?

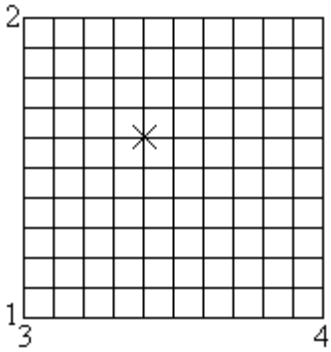


A	B	C	D	E

17 A cook ices 16 cakes.
Each cake is decorated with 15 coloured sweets.
How many sweets are needed to decorate all the cakes?

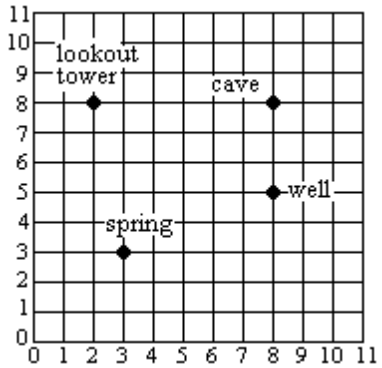
15	150	200	225	240

18 What are the coordinates of the cross in the grid shown below?



(3.3, 1.6)	(1.7, 3.3)	(3.4, 1.6)	(1.6, 3.4)	(1.7, 3.4)

19 The grid below covers a map of an island used in a computer game. What are the coordinates of the well?



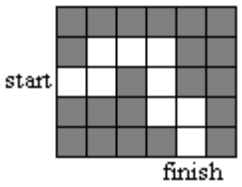
(8, 5)	(5, 8)	(5, 5)	(8, 8)	(9, 5)

.

20 A plan of a house uses a scale of 2cm to 3m. On the plan the living room is 5cm long. What is the real length of the living room?

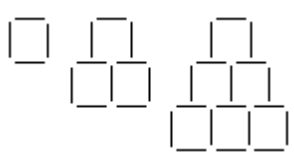
2.5m	5m	6m	7.5m	10m

21 Ali wants to program a robot to travel along the path shown in the picture. The robot can only move FORWARD, TURN RIGHT 90^{o} and TURN LEFT 90^{o}.
What instructions will take the robot through the maze, (starting and finishing outside the maze, at the points labelled)?



FORWARD 2, LEFT 90°, FORWARD, RIGHT 90°, FORWARD 2, RIGHT 90°, FORWARD 2, LEFT 90°, FORWARD, RIGHT 90°, FORWARD 2	FORWARD 2, LEFT 90°, FORWARD, RIGHT 90°, FORWARD 2, LEFT 90°, FORWARD, RIGHT 90°, FORWARD 2	FORWARD 2, LEFT 90°, FORWARD, LEFT 90°, FORWARD 2, LEFT 90°, FORWARD 2, LEFT 90°, FORWARD, LEFT 90°, FORWARD 2	FORWARD 2, RIGHT 90°, FORWARD, LEFT 90°, FORWARD 2, LEFT 90°, FORWARD 2, RIGHT 90°, FORWARD, LEFT 90°, FORWARD, 2	FORWARD, LEFT 90°, FORWARD, RIGHT 90°, FORWARD, RIGHT 90°, FORWARD 2, LEFT 90°, FORWARD, RIGHT 90°, FORWARD 2

22 How many matches are needed to make the next shape in the sequence?



10	14	28	32	40

23 You multiply a number by itself. The answer is then multiplied by the number you started with. The answer is 64. What number did you start with?

2	4	6	8	12

24 What is the missing number in the grid below?

1	5	25
5	?	125
25	125	625

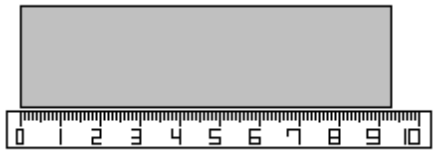
1	10	25	50	125

25 Apples cost £1.32 per kilo. How much will 1.6kg cost?

£0.28	£0.83	£1.21	£2.11	£2.92

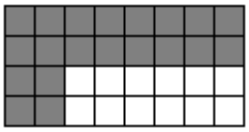
.

26 The piece of card is being measured with a ruler. What is the measurement shown on the ruler?



9.02cm	9.03cm	9.3cm	12cm	93cm

27 What percentage of this grid is shaded?

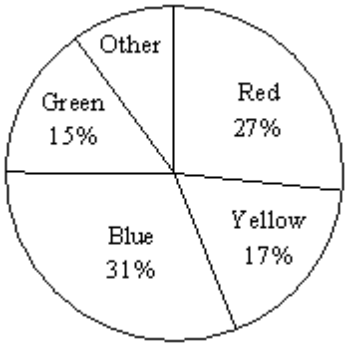


62.5%	62.7%	65.2%	67.2%	67.5%

28 Which number is closest in value to 20?

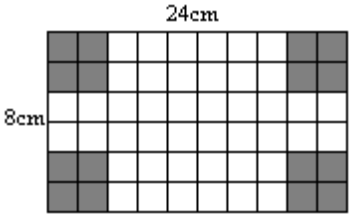
20.01	20.1	19.999	20.009	19.9

29 The pie chart shows the proportions of different pupils who named that colour as their favourite. If there were 27 pupils who chose green as their favourite colour, how many chose a colour other than green, red, blue or yellow?



10	15	18	20	25

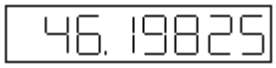
30 The shaded corners are cut out of this flat shape which is drawn to scale with each small square being 4cm by 4cm. It is then folded to make an open box. What is the volume of the box?



$24cm^3$	$44cm^3$	$64cm^3$	$768cm^3$	$1536cm^3$

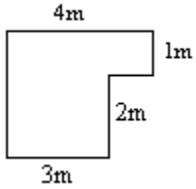
.

31 What is this number to one decimal place?



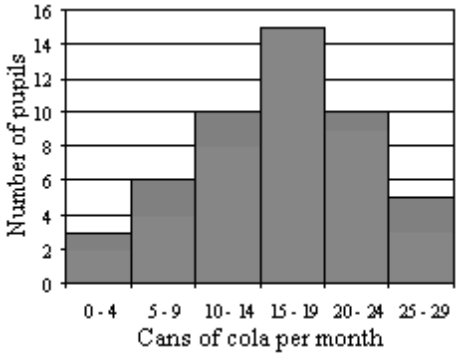
46.1982	46.1983	50	46.1	46.2

32 The diagram below shows the plan of a room.
What is the area of the floor?



$10m^2$	$12m^2$	$14m^2$	$16m^2$	$24m^2$

33 The bar chart shows the results of counting the number of cans of cola that children consume in a month. Which statement must be true?



Exactly 3 children drink less than 4 cans per month.	Between 25 - 29 pupils drink exactly 5 cans per month.	Exactly 13 children drink more than 14 cans but less than 20 cans per month.	No children consume exactly 4 cans per month.	Exactly 9 children consume between 0 and 9 cans per month.

34 If $6x + 5 = 60 - 2x$,
what is x to the nearest whole number?

5	6	7	8	9

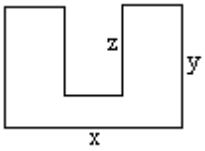
35 Terri's parents are recording how many gold stars she earns at school.
The table shows how many stars she gained on each week day.

Day	Number of Stars
Monday	7
Tuesday	7
Wednesday	2
Thursday	3
Friday	6

What is the mean number of stars for the week?

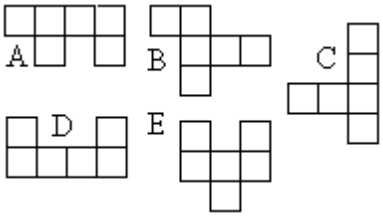
4	5	6	7	25

36 What is the perimeter of this shape?



2x + 2y	xy + xz + yz	2xy - 2z	2x + 2y + 2z	x + y + z

37 Which of the nets shown below can be folded up to form a cube?



A	B	C	D	E

38 Which row of the table below shows a prime, square and cube number in the correct order?

	Prime Number	Square Number	Cube Number
a.	8	88	888
b.	23	25	9
c.	15	23	64
d.	19	9	81
e.	7	36	27

A	B	C	D	E

39 Michael has 4 red marbles, two blue ones, a yellow one and a green one in his pocket. He picks one at random. Which of the following is true?

He has a less than even chance of picking a red marble.	He has an even chance of picking a green marble.	He has the same chance of picking a blue marble as a green one.	He has a less than even chance of picking a blue marble.	He has a more than even chance of picking a red marble.

.

40 On holiday Tom buys some sweets for $2.00. He calculates that the sweets cost £1.11. How much would it cost in pounds for a book priced at $6.00?

£2.22	£3.33	£4.42	£5.41	£8.92

41 In 3 years' time, Leon will be x years old. How old was he 7 years ago?

3x + 7	3x - 7	x + 3 + 7	x + 3 - 7	x - 3 - 7

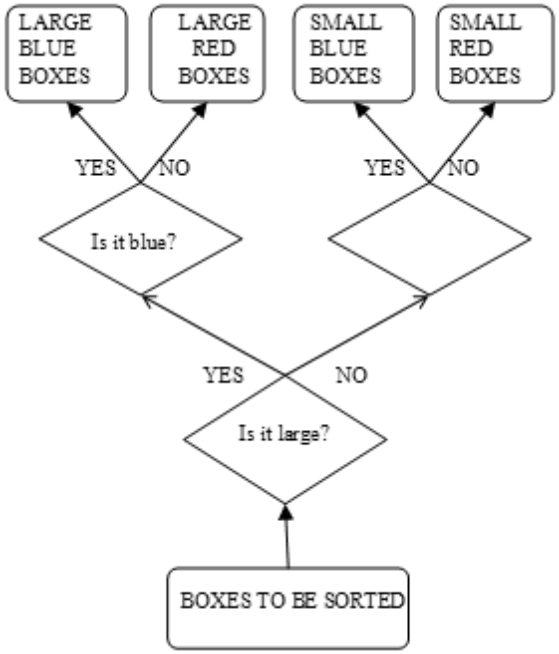
42 There are 900 pupils at a school. Two fifths of them have pet dogs. How many pupils is this?

0.25	25	180	250	360

43 A shopping list includes the following items:
apples, apricots, bananas, baked beans, biscuits, bread, broccoli, carrots, jam, milk, mushrooms, frozen peas, sugar and tea.
What percentage of the items on the list begins with the letter B?

5%	6%	36%	43%	65%

44 The decision tree below is used for sorting boxes. What is missing from the empty shape?



SMALL BOXES	Is it red?	Is it blue?	Is it small?	BLUE BOXES

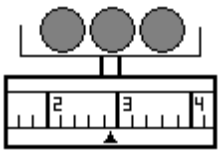
45 What number is the arrow pointing to on the number line below?



8.22	8.24	8.26	8.4	8.6

.

46 What is the weight shown on the scales below?

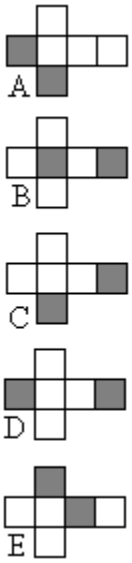


2.4	2.45	2.8	2.9	3.0

47 Stevie is making sandwiches. She has 4 different sandwich fillings, 3 types of bread and 3 different garnishes.
Which shows the number of possible combinations of filling, bread and garnish that she can assemble into a sandwich?

3 + 4 + 3	3 x 4 x 3	(3 x 4) + (3 x 4)	(3 + 4) x (4 + 3)	0.3 + 0.3 + 0.4

48 Which net below would make a cube where the two shaded sides were not next to each other?

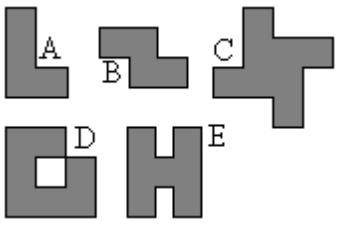


A	B	C	D	E

49 The ceiling is 9ft tall. Which of the following is closest to this height in metres?

1m	2m	3m	4m	5m

50 Which of the shapes below do not have rotational symmetry?



A and D	A and C	B and D	C and D	D and E