

Mental Mathematics - Set G - Test 1

I am going to start with the practice question. I will then ask you 30 questions for the test. You will see a box on your answer sheet to write your answer. For some questions there will be some information on the sheet to help you.

I will read each question twice, and then you will have some time to work out the answer and write it down.

Here is the Practice Question. You will have 5 seconds to complete this question.

	P	Convert the decimal shown to a percentage.
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Put your pens or pencils down. The answer is ...0.38..... Are there any questions?

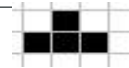
Now we are ready to start the test. For the first group of questions you will have 5 seconds to work out each answer and write it down.

Answer	Question Number	Question
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Answer	Question Number	Question
1.3	1	Multiply together nought point one and thirteen.
0.027	2	What is two point seven divided by one hundred?
7.6	3	Write seven point six one five to two significant figures.
9.0	4	Write nine point zero zero eight to one decimal place
49,40	5	What are the next two numbers in the sequence, 85,76,67,58?
$x > 4$	6	Solve the inequality $3x$ is greater than twelve.
$y \geq 2$	7	What is the inequality that is represented by the shaded region?
184.5	8	My coffee cup has a capacity of 184 millilitres to the nearest millilitre. What is the upper limit of the capacity in my coffee cup?
28	9	What is the perimeter of a square with sides seven centimetres?
13 cm	10	If A is twelve centimetres and B is five centimetres, what is the length of C?

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For the next group of questions you will have 10 seconds to work out each answer and write it down.

Answer	Question Number	Question
10000	11	Bad Burgers sold 178 bags of fries, each bag contained fifty-four fries. Estimate how many fries were sold?
72p	12	The cost of a Tina's favourite drink is 60p. It goes up by 20%. How much does it now cost?
40	13	What is five-sixths of forty-eight?
	14	Enlarge the shape shown by a scale factor of one half.
40cm ²	15	What is the area of the shape shown?
9-11	16	The table shows the lengths of pencils in my pencil case. What is the modal length?
7-9	17	Using the table from the previous question, what is the median length of the pencils?
100	18	Sebastian draws a pie chart based on the favourite colours of his friends. How big should the angle be that represents orange?
49	19	If a is minus three, b is minus four, and c is five, what is the answer to the equation shown?
£12	20	Aleesha is ten years old and Ramesh is eight years old. They share £27 in a ratio based on their ages. How much does Ramesh get?

For the next group of questions you will have 15 seconds to work out each answer and write it down.

Answer	Question Number	Question
$2n+1$	21	What is the rule to find the nth term for this sequence of numbers, 3, 5, 7, 9, 11.
54 cm	22	A cube has a volume of twenty-seven centimetres cubed? What is the surface area of the cuboid?
4km /h	23	Victoria walked a hundred metres in one and a half minutes. What is her speed in kilometres per hour
2048	24	If two to the power of ten is one thousand and twenty four, what is two to the power of eleven
$(x-2)$ $(x+7)$	25	Circle the factors of $x^2 + 5x - 14$
60	26	What is the LCM of 2, 3, 4, 5 and 6?
315°	27	A ship leaves port and travels due east four kilometres. It then turns and heads due south for four kilometres, until it arrives at point B. What is the bearing back to port that the ship must take?
$y=2a^2b$	28	Rearrange the equation shown to make y the subject.
(accept RH side in any	29	Thirty students took a test. The mean mark for the ten girls was 80% and the mean mark for the twenty boys was 50%. What was the class mean average?

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order)		
3 metres	30	If the length of WY is nine metres, the length of XZ is ten metres, and the length of WZ is sixteen metres, what is the length of XY?

'Put your pens down. The test is over.'

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First Name :	Total	
Last Name :		
Teacher : Class :		

P % 0.38

Marked by _____

Answer
1 0.1 13

Mark

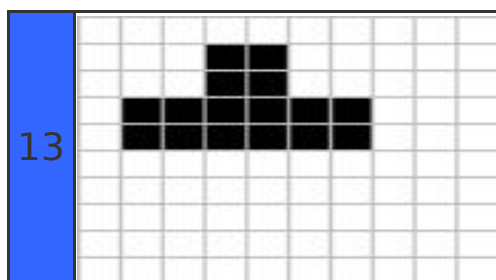
Answer
11 176 54

Mark

2 2.7 100

12 20%

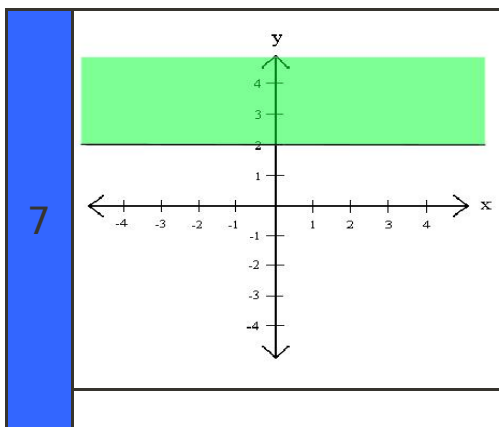
3 7.615



4 9.008

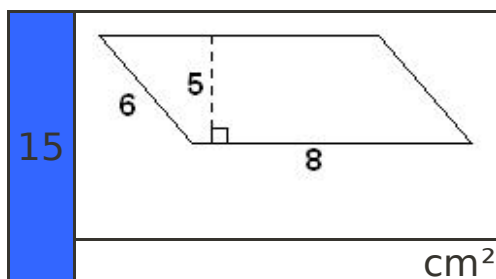
5

6 $3x > 12$



14

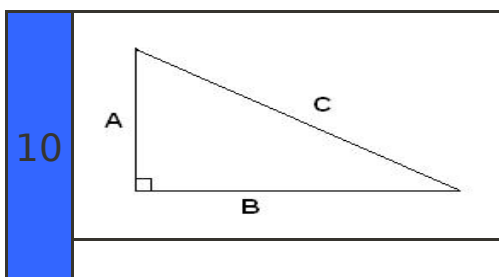
8



9

16

Length	Frequency
3-5	2
5-7	5
7-9	8
9-11	9
11-13	3
13-15	2



17

Side 2 - Set G - Test 1

18	Colour	Frequency
	Pink	3
	Orange	5
	Yellow	8
	Purple	2
		Ω

28	$a = \sqrt{\frac{y}{2b}}$
	$y =$

19		$a^2 - 2bc$
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20	£
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21	
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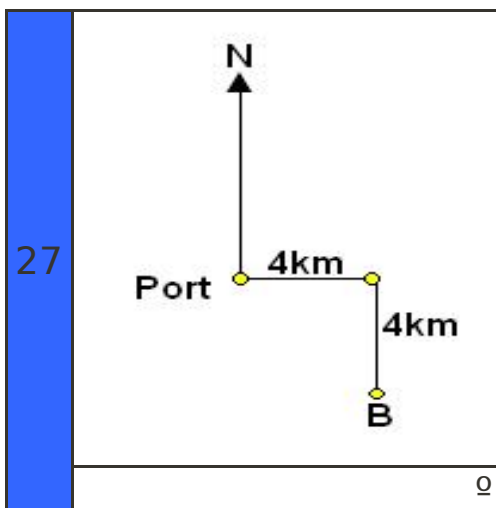
22		27cm^3
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23		km/h
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24	
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25	$(x + 2)(x + 7)$
	$(x - 2)(x - 7)$
	$(x - 2)(x + 7)$
	$(x + 2)(x - 7)$
	$(x + 2)(x - 7)$

26	
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29	Students	Average Mark	
	Boys	20	50%
	Girls	10	80%
			Ω

