2010/2nd A

Your Name:

Oundle School

Entrance Examination to the Second Form Mathematics

Calculate each of the following

5.

(a) 5×-4

 $(c) - 6^2$

(b) $(5-8) \times -2$

Section A 30 Minutes

Answer.....

Answer.....

Answer.....

Write **ALL** of your working on this paper. No other paper may be used. The answers alone <u>are of no use.</u> Show enough working on each question to make it clear how you reached your answer.

You are NOT allowed to use a calculator for this section NO CALCULATORS

1.	Work out $\frac{6}{5} - \frac{7}{4}$	2.	Find 273 × 1.06
	Answer		Answer
3.	Divide 1835 by 5	4.	Calculate (38.6 + 15.1) × 3
	Answer		Answer

6. If x = -2, y = 4, z = -3 find $xyz - 3x^2$

Answer.....

7. Calculate $3\frac{1}{3} \times 3\frac{1}{5}$

Answer.....

8. Continue the patterns, giving the next two terms each time

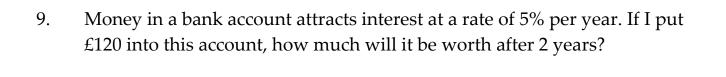
(a) 2, 3, 5, 7, 11, 13, 17,

(b) x, 2x + 3, 3x - 6, 4x + 9,

(c) 2, 5, 10, 17, 26, 37,

(d) 36, 18, 12, 9, 6, 4,

(e) 20, 10, 5, 2.5,



Answer.....

10. If I stack 1000000 bricks at a rate of 1 brick per second, roughly how many days will it take to finish the task?

,

Answer.....

11. Work out $\frac{3}{8} \times \frac{4}{3}$ as a fraction in its lowest terms

Answer.....

12.	6 men take 8 days to dig a hole. How long does it take			
	(a)	3 men to dig 1 hole		
			Answer	
	(b)	2 men to dig 1 hole		
			Answer	
	(c)	2 men to dig 7 holes		
			Answer	
13.	Two of the 3 angles in a triangle are 38.1° and 84.6°. What is the value of the third angle?			
			A	
			Answer	

14.	The mean (average) height of 4 girls is 1.63 m. What is the total height of the 4 girls?
	Answer
15.	How many different ways can you arrange the letters in the following word? ROBIN
	(you should show your method very clearly as we are more interested in HOW you did the problem than your answer!)

2010/2nd B

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Section B 30 Minutes

Write **ALL** of your working on this paper. No other paper may be used. The answers alone <u>are of no use.</u> Show enough working on each question to make it clear how you reached your answer.

You MAY use a calculator for this section CALCULATORS ALLOWED

1. A ferry carries cars and lorries. For every lorry there are 3 cars. If the total number of cars and lorries on the ferry is 240, how many lorries are on the ferry?

Answer.....

2. Use your calculator to find the value of $\frac{27.8}{17.3-8.16}$. Write down all of the figures on your calculator display.

Answer.....

3.	What is my number?					
	(a) I think of a number, double it and add 3. The answer is 45.					
	My number is=					
	(b) I think of a number, add 6 and then halve it. The answer is 21.					
	My number is=					
4.	Find 12% of £20					
	Answer					

5.	Simplify each of the following					
	(a)	x + x + x + x + x + x				

Answer.....

(b) $5 \times x \times 4 \times x$

Answer.....

6. Work out how many numbers between 1 and 50 are multiples of 2, 3 and 4.

7.	What is th	e larg	est w	hole n	umbe	er that	is a factor of both 64 and 24?
							Answer
8.	If I score 3 Give your						test, what percentage did I score? hal place.
							Answer
9.	Find the m to 1 decim			ge) of	the fo	ollowi	ng numbers, giving your answer
		4		5	7	8	10
							Answer

10.	Find the missing numbers
	× 10000000 =

.....
$$\div 0.5 = 30$$

11. I walk along a road at a speed of 3.4 km per hour for two hours and then along another road at 2.8 km per hour for 20 minutes. Calculate how far I have walked in total, giving your answer to the nearest metre.

51000

Answer.....

12. A box measures $30cm \times 14cm \times 18cm$. How many $3cm \times 3cm \times 3cm$ cubes can you store in the box and still manage to fit a lid on top?