Name	
Current School	

Mathematics

Entrance exam for: 14+ (Sample)

Time allowed: 45 minutes

Comments:	

Section A

Each of the following questions are worth 1 mark

Write your answers down the right-hand side

		Answer
1	Calculate 573 + 48	
2	Calculate $20 - 2 \times 5 - 7$	
3	Calculate $\frac{2}{3} + \frac{1}{6} - \frac{1}{12}$	

6	Find the value of 2^5	
7	Find the value of 4^{-2} $^{-}$ $= \frac{1}{}$	
8	Solve 2 + 7 = 11	
9	Solve 3(− 4) = 12	
10	At the bakers, iced buns cost 80p and cinnamon rolls cost £1.10. How much do 2 iced buns and 1 cinnamon roll cost?	

Each of the following questions are worth 2 marks

Write your answers down the right-hand side

		Answer
11	Factorise	

14	Make the subject of the equation $5 + 3 = \frac{-1}{2}$	
15	In a certain year, the value of a painting increased by 20%. If at the start of the year it was worth £2400, how much is it worth now?	

Section B

Each of these multiple choice questions is worth 2 marks.

If you give an incorrect answer you will be deducted 1 mark.

Write your answer by putting the relevant letter on the right hand side.

		Answer
1	Which statement is true? A: $24 \times 70 = 74 \times 20$ B: $24 \times 70 = 48 \times 35$ C: $24 \times 70 = 12 \times 35$ D: $24 \times 70 = 48 \times 140$	
2	What is the value of the missing digit? $4714 \times 28 = 1319?2$ A: 4 B: 6 C: 2 D: 9	
3	A line parallel to $= 3 - 5$ passes through the point $(2, 9)$. What is its equation? A: $= 9 + 3$ B: $= 3 + 3$ C: $= 3 + 9$ D: $= 3 + 7$	

Write

$$^2 + 4 \quad + 3$$

In the form

$$(\quad + \quad)^2 +$$

4

For the following questions you should show all of your working clearly.

Correct answers without working may not receive full marks.

6 Solve the following pairs of simultaneous equations [3]

$$2 + 3 = 10$$
$$5 - = -9$$

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7 Solve $3 + 2 \leq 4 - 5$ [2]

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8 A car travels at an average speed of 45 mph for 20 minutes.

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10 A cup of tea costs £ and coffee is £2 $-\frac{1}{4}$, where is in pounds. [5]
If 3 teas and 2 coffees cost £5.80, find .

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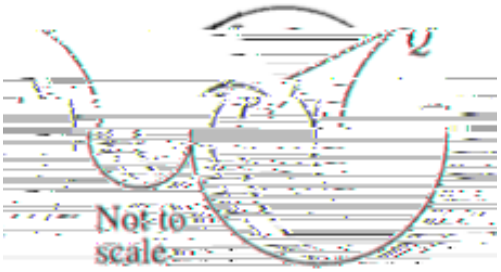
11 Two circles with radii 1 cm and 4 cm touch. The point is on the smaller circle, is on the larger circle and is a tangent to both circles. [5]



Find the length .

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End of Exam