2009/2nd A

Your name:

OUNDLE SCHOOL

Examination for Entrance to the Second Form **Section A**
MATHEMATICS **30 minutes**

Write ALL of your working on this paper. No other paper may be used. The answers alone are of no use. Show enough working on each question to show how you are getting your answer.

You are NOT allowed to use a calculator for this Section. **NO CALCULATORS**

1. Work out $31.3 + 282 - 1.85$

Answer .....

2. Work out $318 \times 0{\cdot}6$

Answer .....

3. Work out $23721 \div 3$

Answer .....

4. Work out $\frac{4}{5} - \frac{2}{3}$

Answer .....

5. The temperature outside at 6.00pm was $-5°C$. Over the next six hours it increased by $11°C$. What was the temperature at midnight?

Answer .....

6. What is 481 minutes in hours and minutes?

Answer .....

7. If a train leaves Paddington at 09.54 am and takes 6 ¼ hours to get to Truro, when would it arrive?

Answer .....

If the journey is a total of 400 km, how far on average would it travel every hour?

Answer .....

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8. Change 2·2 hours into minutes

Answer .....

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9. If the value of a car originally bought for £5100 decreases by 15% over a year, what is the new value of the car?

Answer .....

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10. Continue the patterns, giving the next two numbers each time:

a) 19, 25, 31, ..., ...

b) 4, 16, 64, ... , ...

c) 11, 6, 1, ... , ...

d) 4, 5, 9, 14, 23, 37, ... , ...

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11. Fill in the missing numbers:

0·41 × ..... = 41000

20 ÷ ..... = 100

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12. If eight people share a lottery jackpot of 7 million pounds, how much does each person get?

Answer .....

John wins £1000 in a completion and decides to buy each member of the family a DVD player costing £124.50. How many family members can John buy a DVD player for?

Answer .....

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13. 3 pens and a pencil together cost £1.20. If I buy 4 pens and 1 pencil the total cost is £1.55. What is the cost of a single pen and the cost of a single pencil?

Pen .....

Pencil .....

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14. A model car travels 1·8 km in 36 minutes. How long would it take to travel 1 km?

Answer .....

How many metres would it travel in 21 minutes?

Answer .....

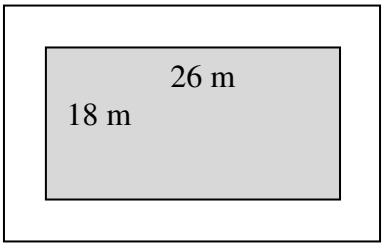
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15. On a clock face, what is the angle between the hands at 08.30?

Answer .....

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16. A rectangular lawn, 18 metres by 26 metres is surrounded by a path 2 metres wide. Use the diagram to help you work out the area covered by the path.



Answer .....

END OF SECTION A

2009/2nd B

Your name:

OUNDLE SCHOOL

Examination for Entrance to the Second Form **Section B**
MATHEMATICS **30 minutes**

Write ALL of your working on this paper. No other paper may be used. The answers alone are of no use. Show enough working on each question to show how you are getting your answer.
CALCULATORS SHOULD BE USED FOR THIS SECTION.

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1. Use your calculator to work out 384×2.6

Answer .....

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2. Find 64% of £152.

Answer .....

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3. If 250 seeds together weigh 150 grams, what is the weight in grams of a single seed?

Answer .....

A pile of seeds weighs 229.8 g. How many are in the pile?

Answer .....

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4. a) Find the mean (average) of the numbers 38, 27, 59, 43, 92.

Answer .....

b) Five people have an average age of 28. When a sixth person joins the group, the average age changes to 26. How old is the sixth person?

Answer .....

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5. 320 corns are placed into a pan of hot oil in order to make some popcorn. After 1½ minutes only 284 of the corns have popped. What percentage (to the nearest whole number) of corns is left unpopped?

Answer .....

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6. Find the total surface area of a closed box which measures 25 cm × 39 cm × 21 cm.

Answer .....

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7. Work out how many numbers between 1 and 100 are exactly divisible by both 3 and 5.

Answer .....

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8. If I have £12 in 20p coins, how many 20p coins do I have?

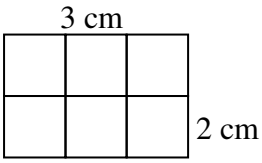
Answer .....

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9. If I multiply a number by 6 and add 5 the answer is 251.
What is the number?

Answer .....

10.



The "3 by 2" grid shown is made up of squares of side 1 cm. The total length of the grid lines is 17cm (check this). Work out the following:

a) the total length of the grid lines for a 3 by 7 grid.

Answer .....

b) the total length of the grid lines for a 30 by 70 grid.

Answer .....

END OF EXAMINATION