2008 / lst

OUNDLE SCHOOL

Name:

Mathematics Examination for Entrance to the First Form **Time : 1¼ hours**

This paper consists of two sections, Sections A and B. For entry into Oundle School, candidates are only expected to complete Section A within the 1¼ hours, although you may tackle some of Section B if you want to and if you have time. Section B is really for those who are competing for a scholarship award. It is expected that such candidates will complete Section A in 45 minutes and then spend 30 minutes on the Section B questions.

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.

NO CALCULATORS ALLOWED

SECTION A

1. Work out 65 + 88 Answer ……	2. Work out 123 – 67 Answer …….
3. Multiply 76 × 9 Answer …….	4. Work out 336 ÷ 6 Answer …….

5. Subtract three times the smallest number from twice the largest number in this list :

4, 11, 8, 2, 7, 13

Answer ……

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6. Write as a number : ninety thousand and nine

Answer ……

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7. When Greg started to climb Ben Nevis, the temperature at the bottom was 17 degrees. At the top, it was −2 degrees. What was the overall drop in temperature as he climbed up the mountain ?

Answer …….

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8. What is 463 minutes in hours and minutes ?

Answer ……..

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9. Melanie's father took 1 hr 25 mins to drive from Peterborough to Oxford. He left Peterborough at 11.45 am. At what time did he arrive in Oxford?

Answer …….

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10. Change 4.6 minutes into seconds.

Answer …….

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11. Continue the sequences, giving the next two numbers each time :

(a) 4, 10, 16, 22, …….. , ……

(b) 1, 3, 9, 27, …… , ……..

(c) 12, 7, 2, −3, …… , …….

(d) 1, 1, 2, 3, 5, 8, …… , ……

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12. Find the missing numbers :

$3.49 \times$ …… $=$ 349 000

$9 \div$ …… $=$ 36

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13. Five friends shared the cost of a mansion (priced at 3 million pounds) equally. How much did each of them pay ?

Answer ……...

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14. Susan's bus fare is exactly 44 p. If the driver can give her change, what is the smallest number of coins that can change hands when Susan pays to get on the bus ? (Explain clearly)

Answer …….

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15. There are 120 boys and 80 girls at a small primary school. During the holidays, 50% of the boys and 60% of the girls saw the latest Harry Potter movie. How many pupils in total from the primary school saw the movie ?

Answer ……..

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16. On a clock face, what is the angle between the hands at 8.30 ?
(Remember : the hour hand will have moved on since 8.00!)

Answer …….

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17. You are told that $22 \times 46 = 1012$. Use this fact to write down the answers to :

(a) 220×46 Answer …….

(b) 2.2×0.46 Answer …….

(c) $22\,000\,000 \times 0.046$ Answer …….

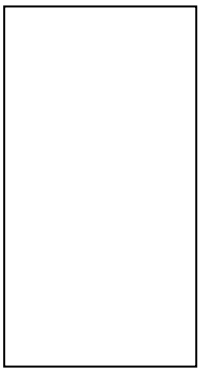
(d) $101\,200 \div 4.6$ Answer …….

(e) 44×23 Answer …….

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18. _____
36 cm

A piece of wire 36 cm long is bent into the shape of a rectangle.
If the rectangle is twice as long as it is wide, what is its area (in square centimetres) ?



Answer : …….

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19. Robert enjoyed his summer holiday. He spent half of it working in a music store. He spent half of the remaining time reading and relaxing at home, and, after spending 4 days at a friend's house, he had exactly 2 weeks left to attend a summer camp. How long (in days) was his summer holiday ?

Answer …….

END OF SECTION A

SECTION B

PLEASE REMEMBER THAT YOUR FULL WORKING DETAILS MUST BE SHOWN IN EVERY QUESTION !

20. What is 60% of 10% of $900 ?

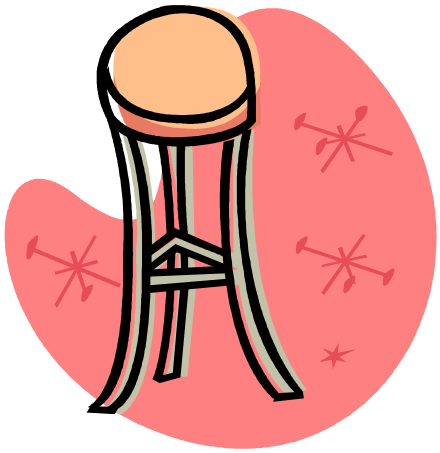
Answer ……

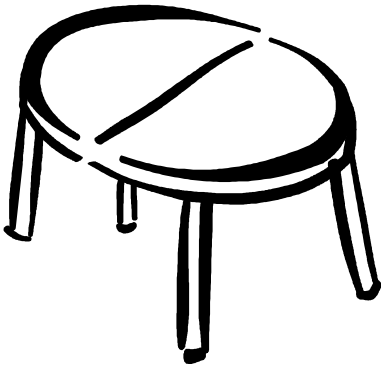
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21. What is the smallest **odd** 5-digit number that you can make with the digits 4, 7, 5, 8, 3 using each digit only once ?

Answer …….

22.





As his hobby, Fred builds 3-legged stools and 4-legged tables. Last month he used 72 legs and he built 3 more stools than tables. How many stools and how many tables did he build ?

Answer …….

23. 2008 is a leap year, and this year the 29th of February falls on a Friday. On what day of the week will the 29th of February fall in the next leap year (2012) ? (Remember there are 366 days in a leap year).

Answer ……..

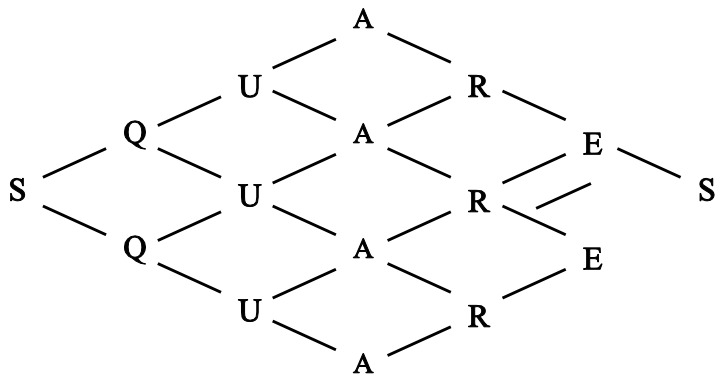
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24. Adam, Ben and Carl are weighing themselves.
Together, Adam and Ben weigh 102 kg
Ben and Carl weigh 97 kg
Adam and Carl weigh 93 kg.
What is their total weight in kg ?

Answer ……

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25. On this diagram, the start position is the letter S on the left, and the finish position is the letter the S on the right. You have to move from letter to letter, and you may only move along the lines. Following these rules, how many different routes can you find which spell out the word SQUARES ?



(You may use the back of this sheet if you need extra space, but remember there is probably a quick, clever way of doing it rather than trying to write out all the possible routes!)

Answer : …….

END