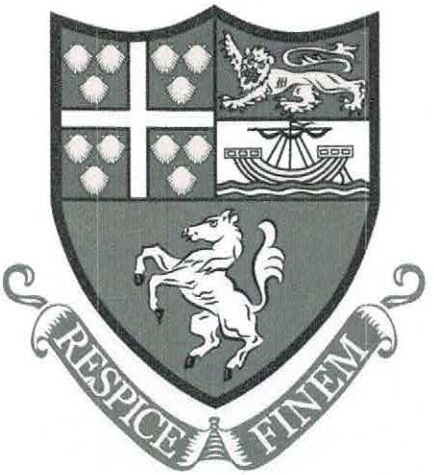
Kent



College

11+ MATHEMATICS SAMPLE PAPER

45 minutes

Equipment Required: Pencil and pen

Special Instructions: **All working must be clearly shown** and must be set out in the space provided. Attempt as many questions as you can, in any order.
Calculators may **not** be used.
Marks for each question are shown.

Name:	ANSWERS
Result:	/60
Comment:	

1. Write the number thirty thousand eight hundred and five in figures.

Answer 30,805 [1]

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2. Write the number 602 174 in words.

Answer Six hundred and two thousand, one hundred and seventy four [1]

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3. Write down all the factors of 24.

Answer 1, 2, 3, 4, 6, 8, 12, 24 [3]

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4. Fill in the gaps:

(a) 2.2 km = 2200 meters [1]

(b) 575 ml = 0.575 litres [1]

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5. Calculate the answer to

(a) $^{-}8 + {}^{+}6$ = -2 [1]

(b) $^{-}7 - {}^{-}3$ = -4 [1]

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6. Work out each of the following and write your answer in the space provided:

(a) $72 \div 9 + 3 =$ ..11.. [1]

(b) $25 - 3 \times 7 =$ ..4.. [1]

(c) $36 \div (12 - 3) =$ ..4.. [1]

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7. Work out:

(a) £8.39 + 63p

Answer ..£9.02.. [2]

(b) £6.00 - £2.79

Answer ..£3.21.. [2]

(c) £3.24 x 17

Answer ..£55.08.. [3]

(d) £29.96 ÷ 7

Answer ..£4.28.. [3]

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8. Nicole downloaded 6 MP3 albums. Each album cost £8.98 and contained 13 tracks.

(a) How many tracks did she buy?

Answer ....78.... [1]

(b) How much did she pay in total?

Answer ....£53.88.... [1]

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9. 37 girls are going to a Netball Tournament with 6 adults. Each mini bus holds 17 people. How many minibuses are needed?

$\frac{43}{17} = 2\frac{9}{17}$

Answer ....3.... [3]

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10. Alice's train leaves at 16:05. She must allow 1 hour and 12 minutes to get to the station. When is the latest she can leave home and still catch the train?

Answer ....14:53.... [2]

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11. (a) Write down the next two terms in this

5, 12, 19, 26, ...33...., ...40...., [2]

(b) Fill in the missing numbers in this sequence

5, ...13...., 21, 29, ...37....45, 53 [2]

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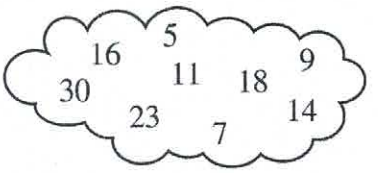
12. Look at the numbers in the cloud:



Write down **all** the numbers in the cloud that are:

(a) multiples of 3 ..30, 18, 9..... [1]

(b) prime numbers ..23, 5, 11, 7..... [1]

(c) factors of 45 .....5, 9..... [1]

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13. There are 18 chocolates in a box. $\frac{2}{3}$ are milk chocolate, the rest are plain. How many chocolates are plain?

$\frac{1}{3}$ of 18

Answer .....6..... [2]

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14. 9 girls were asked how many pets they had. These are their results.

7, 5, 1, 5, 4, 3, 5, 7, 8

Find the mode, median, mean and range.

1, 3, 4, 5, 5, 5, 7, 7, 8

The mode is 5 [1]

The median is 5 [2]

The mean is 5 [2]

The range is 7 [1]

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15. Work out the following:

(a) 40% of £200

Answer £80 [2]

(b) 35% of 500g

Answer 175g [2]

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16. Harriet thought of a number. She added 4 and then multiplied by 3. She added 6 to her answer and then divided by 4 to get 9. What number did Harriet first think of?

Answer 6 [3]

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17. Jess went out hunting for ladybirds. She collected some with 7 spots and some with 10 spots. If she collected 9 ladybirds with a total of 72 spots between them, how many had 7 spots and how many had 10 spots?

$7x + 10y = 72$

$x + y = 9$

$$\begin{array}{r} 7x + 10y = 72 \\ -\ 7x + 7y = 63 \\ \hline 3y = 9 \\ y = 3 \end{array}$$

Answer 7 spots: 6 10 spots: 3 [3]

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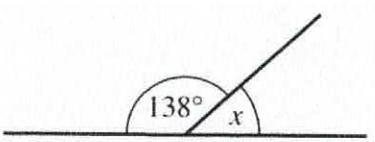
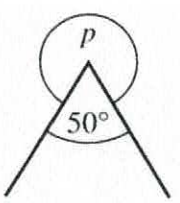
18. (a) Work out the angle marked x.



x = 42 ° [1]

(b) Work out the angle marked p.



P = 310 ° [1]

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19 Solve these equations:

(a) $x + 4 = 7$ $x =$ 3 [1]

(b) $3y = 15$ $y =$ 5 [1]

(c) $\frac{p}{4} = 5$ $p =$ 20 [1]

(d) $7 - n = 9$ $n =$ −2 [1]

END OF EXAMINATION

Total