



GCSE Mathematics



Unit 1: Calculator *NOT* Allowed

Intermediate Tier

County Revision Paper 1A (Topics Relating to **Number**)

55 Minutes

School: _____

Student Name: _____

Question	Maximum Mark	Mark Awarded
1	3	
2	3	
3	7	
4	3	
5	3	
6	2	
7	3	
8	3	
9	2	
10	6	
11	5	

1. Showing **all** your working, write 0.65, $\frac{3}{5}$ and $\frac{70}{100}$ in descending order.

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[3]

2. A band hired a concert hall for two nights.
They would only hire the hall for a third night if at least 0.9 of the tickets were sold for either of the first two nights.

On the first night, 82% of the tickets were sold.

On the second night, $\frac{3}{4}$ of the tickets were sold.

Did the band hire the concert hall for a third night?

You must **show all your working**, explaining clearly how you decided.

[3]

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3. Calculate each of the following.

(a) 0.4×0.7 [1]

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(b) $13.8 - 7.45$ [1]

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(c) $3^3 - 2^4$ [2]

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(d) $\frac{9}{10} - \frac{3}{5}$ [2]

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(e) $\frac{1}{0.25}$ [1]

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4. (a) A fair, six sided dice is rolled.
What is the probability that a 3 **is not** shown on the dice?
Circle your answer.

[1]

56% $\frac{5}{6}$ 5:6 5.6 $\frac{1}{5}$

- (b) 120 raffle tickets were sold at a fete.
Sian has a 30% chance of winning the top prize.

How many tickets did Sian buy?

[1]

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- (c) A bag contains a mixture of blue beads, yellow beads and pink beads.
One bead is taken at random from the bag.

The probability that the bead is yellow is $\frac{2}{5}$

Which of the following sets of beads could have been in the bag?

Circle your answer.

[1]



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5. A shop has 31 plant pots.
Some are blue, some are yellow and the rest are red.
There are five more blue pots than yellow pots.
There are four times as many blue pots as there are red pots.

Calculate how many pots there are of each colour.

[3]

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Blue Yellow Red

6. Team A and B play in a competition.

Team B has 8 more points than Team A.
Team B has three times as many points as Team A.

How many points does each team have?

[2]

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Team A: points Team B: points

7. A fraction is written as $\frac{a}{b}$
- The fraction is a multiple of 0.1
 - The fraction is smaller than $\frac{1}{2}$
 - The fraction is more than 35%

Write down the fraction as $\frac{a}{b}$, where a and b are whole numbers.

[3]

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8. Use the fact that $5.3 \times 8.6 = 45.58$ to write down the answers to the following.

(a) $53 \times 86 =$

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..... [1]

(b) $530 \times 43 =$

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..... [1]

(c) $455.8 \div 0.86 =$

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..... [1]

9. Clearly showing how you obtained your answer, ESTIMATE the value of

$$\frac{154 \times 4023}{590}$$

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..... [2]

10. (a) Express 1200000 in standard form. [1]

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(b) Express 0.000051 in standard form. [1]

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(c) Calculate the value of $\frac{4.8 \times 10^5}{2 \times 10^{-3}}$, giving your answer in standard form [2]

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10. (d) Calculate the value of $(3.6 \times 10^4) + (9.8 \times 10^5)$, giving your answer in standard form [2]

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11. (a) Express 240 as a product of prime numbers in index form. [3]

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(b) Use your answer to part (a) to write down 240^2 as a product of prime numbers in index form. [1]

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(c) The number 387 420 489 is equal to 3^{18} .
Explain how this tells you that 387 420 489 is a square number [1]

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