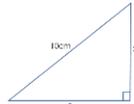
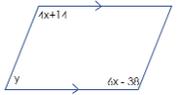
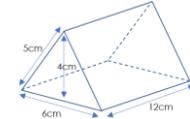
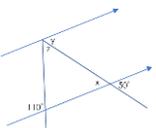
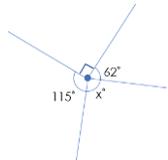


# A BIT OF MATHS EACH DAY – FOUNDATION TIER – NON-CALCULATOR TILL 23<sup>RD</sup> CALCULATOR FROM 25<sup>TH</sup>

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
7 <sup>th</sup> May	8 <sup>th</sup> May	9 <sup>th</sup> May	10 <sup>th</sup> May	11 <sup>th</sup> May	12 <sup>th</sup> May	13 <sup>th</sup> May
<h2 style="color: red; font-size: 2em;">Lets Get Ready</h2>	(a) How many minutes are there in $5\frac{1}{2}$ hours? (b) How many hours are there in 720 minutes? (c) Paul starts watching a film at 11.25am. The film lasts 1hr 45 minutes. At what time does it finish?	(a) $\frac{5}{8}$ of a number is 75. What is the number? (b) 16% of a number is 28. What is the number?	A café has a choice of two main dishes, fish and chips or cheese pie. It has a choice of three deserts – apple pie, chocolate brownie or ice cream. People choose a main course and a desert as part of a deal the café offers. Write down all the possible combinations of dishes that could be chosen.	Draw the graph of $y - 2x = 5$ between $x = -5$ and $x = 2$	Without using a calculator, find the answer to: (a) $35609 \div 7$ (b) $93 \times 24$	A survey of students in a Y11 class done to find the favourite football team. 9 said Sheffield Wednesday 4 said Manchester United 5 said Liverpool 13 said Sheffield United 5 said they didn't like any team. (a) Draw a pie-chart to illustrate the information. (b) A student is picked at random. What is the probability they support Liverpool?
(a) A rectangle has a length of 9cm and an area of $45\text{cm}^2$ . What is its width? (b) The perimeter of a regular hexagon is 72cm. What is the length of each side of the hexagon?	(a) Expand and fully simplify $(x + 5)(x - 2)$ (b) Factorise fully $x^2 + 9x - 36$ (c) Using your answer to part (b) solve $x^2 + 9x - 36 = 0$	Look at this set of numbers. 1, 3, 6, 8, 9, 11, 27, 42 Write down... (a) a factor of 24 (b) a multiple of 4 (c) a prime number (d) a square number (e) a cube number	Find the mean, mode, median and range of the numbers 8, 9, 3, 8, 2, 6, 11, 9	(a) Find the nth term of the sequence 9, 16, 23, 30, 37, ... (b) Bill says that 261 is in the sequence. Is he right? Explain your answer.	 (a) Find the size of length x. (b) Find the perimeter and area of the triangle.	(a) Simplify fully $4a + 9a - a - 2a$ (b) Simplify fully $8x - 3y - 4x - y$ (c) Expand $5(2x - 7)$
 The diagram shows a parallelogram. Find the value of y.	(a) Find $0.48 \times 9.8$ (b) Use your answer to write down what £9.80 would be after a 52% reduction.	I think of a number. I multiply it by 3 and subtract 8. The answer is 13. What number did I think of?	Solve the following equations (a) $5x = 60$ (b) $8x - 3 = 29$ (c) $5x + 2 = 9x - 11$	 The diagram shows an isosceles triangular prism. Find the volume and surface area of the prism.	Estimate the answer to $891 \times 6.33$ 0.481 Showing clearly how you came by your estimate.	(a) Round 89491 to the nearest 100. (b) Round 12.4591 to 2 decimal places. (c) Round 37.19 to 1 significant figure.
7 packets of biscuits cost £3.85. How much will 3 packets cost?	 Find the size of angles x, y and z giving correct geometrical reasons each time. (Diagram not drawn accurately)	Evaluate: (a) $8 + 2 \times 3 + 5$ (b) $6^{-2}$ (c) $(3 \times 10^3) \times (1.5 \times 10^5)$ (give your final answer in standard form)	<b>TODAY IS PAPER 1</b> <b>GOOD LUCK!</b> <b>PAPER 2 7<sup>TH</sup> JUNE</b> <b>PAPER 3 12<sup>TH</sup> JUNE</b>	(a) 8km = 5 miles. The ratio of km to miles can be written in the form 1 : n. What would the value of n be? (b) A map uses the scale 1 : 200,000. A distance on a map measures 8.1 cm. How far is this in real life? Give your answer in miles.	A bag has 5 red balls, 3 white balls and 4 black balls. Susan picks a ball at random, notes the colour and puts it back in the bag. She then picks another ball. What is the probability that she picks two balls that are the same colour?	A supermarket sells three different sizes of the same brand of cereal. A 250g box costs £1.08 A 700g box costs £2.95 A 900g box costs £3.95 Which is the better value? Show how you came by your answer.
 Find the area and circumference of this circle. Give your final answers correct to 2 decimal places.	Pauline, Rachael and Susan share some money in the ratio 4 : 3 : 5. Rachael gets £270. How much do Pauline and Susan each get?	(a) Increase £27.50 by 18% (b) Ian bought a car for £12,640. Two years later he sold it for £9,950. Work out the percentage loss he made.	 Find the size of an angle x	Mr and Mrs Smith are taking their three children on a train journey. Adult return tickets are £4.50 more expensive than child tickets. To total cost of all the return tickets is £72.50. What is the cost of each type of ticket?	Paul is going on a trip to Europe. He takes with him £800. He is staying for 3 days and his travel and accommodation has already been paid for. He spends €80 each day for food and drink. He spends another €250 at the airport on duty free. If the exchange rate is £1 = €1.21, how many pounds does he receive when he converts his money back again?	A recipe for Shortbread biscuits makes 20 biscuits: 125g butter 55g caster sugar 180g plain flour. (a) How much of each ingredient is required for 12 biscuits? (b) I have 240g of plain flour and loads of butter and caster sugar. What is the largest number of shortbread biscuits I could make?