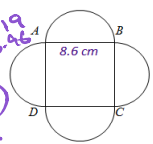
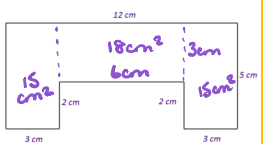
A LITTLE BIT OF MATHS EVERY DAY ...

JULY 2017

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
					1 A square has an area of 100 cm^2. The length of a rectangle is three times the width of the rectangle. The perimeter of the square is the same as the perimeter of the rectangle. Work out the area of the rectangle. 75cm^2	2
3 Factorise fully $4x^3y + 6xy - 9x^2y^2$ $xy(4x^2 + 6 - 9xy)$ $x^2 - 100$ $(x+10)(x-10)$	4 Work out the value of $(8.4 \times 10^6) \times (3.5 \times 10^7)$ 29.4×10^{13} 2.94×10^{14}	5 Round 0.000608765 to three decimal places 0.000609	6 Work out 1.83 × 47 86.01	7 Simplify fully $\frac{m^{-2} \times m^5}{m^{-4}}$ $\frac{m^3}{m^{-4}} \cdot m^2$	8 Find an expression, in terms of n, for the nth term of this sequence: -3, 3, 9, 15, 21, 27 (6, 6, 6, 6, 6) $6n - 3$	9
10 What size is the exterior angle of a octagon? $360 \div 8 = 45$	11 Solve $7(x + 2) = 7$ $x + 2 = 1$ $x = -1$	12 1·0225 £1282.81 I invest £1200 in an account that pays compound interest of 2.25% per annum. How much money will be in the account in 3 years	13 Write 51 as a product of its prime factors 3×17	14 Factorise $x^2 - 4x - 12$ 1,12 2,6 ✓ 3,4 $(x - 6)(x + 2)$	15 Ann and Bob share £360 in the ratio 4:5 160 : 200 Bob then gives some of his money to Ann so that they each have the same amount. A 180, B 180 Work out how much money Bob gave to Ann 20	16
17 SImplify $3x + 3x$ $6x$	18 Rearrange to make l the subject $H = atl^2 - b$ $l = \sqrt{\frac{H+b}{at}}$	19 Calculate: $\frac{6}{5}$ $\frac{3}{5} \div \frac{1}{2} = \frac{1}{5}$	20 Write down the value of 2^{-2} $\frac{1}{2^2} = \frac{1}{4}$	21 A number "x", is rounded to 4.52 correct to 2 decimal places. What is the error interval of x? $4.515 \leq x < 4.525$	22 Work out the area of this shape: 116.19 + 28.26 $r = 4.3$cm $2 \times (\pi \times 4.3^2) + (8.6 \times 8.6)$ 190.14 cm^2 	
24 Evaluate 27^0 $= 1$	25 What is the lowest common multiple of 4, 18 and 15? 18 126 36 144 54 162 72 180 90 108 180	26 Calculate: $1\frac{2}{5} \times 2\frac{3}{8}$ $\frac{7}{5} \times \frac{19}{8} = \frac{133}{40} = 3\frac{13}{40}$	27 Expand and simplify $(3x - 2y)(2x + 4y)$ $6x^2 + 12xy - 4xy - 8y^2$ $6x^2 + 8xy - 8y^2$	28 Which of these is the largest fraction? $\frac{7}{10}\ \frac{28}{40}$ $\frac{3}{5}\ \frac{24}{40}$ $\frac{29}{40}$	Work out the area of this shape: 48cm^2 	
31 Simplify $6x(x - 3) - 2x(3 + 2x)$ $6x^2 - 18x - 6x - 4x^2$ $2x^2 - 24x = 2x(x - 12)$						

REMEMBER: THE BEST WAY TO REVISE MATHS IS TO "DO MATHS"!