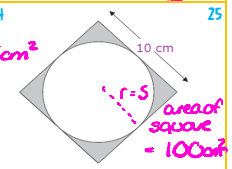
A LITTLE BIT OF MATHS EVERY DAY ...

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
SEPTEMBER 2016			1 What is 1.2 divided by 0.2? $\frac{1.2^{\times 10}}{0.2_{\times 10}} = \frac{12}{2} = 6$	2 Write 54×10^3 in standard form 5.4×10^4	3 Al, Bob and Chris sell cars. Al sells x cars. Bob sells 5 more cars than Al. Chris sells twice as many cars as Al. Write an expression, in terms of x, for the mean number of cars Al, Bob and Chris sell. Mean $= \frac{4x+5}{3}$ A B C x $x+5$ $2x$ $4x+5$	4
5 Simplify $(2a)^3$ $2a \times 2a \times 2a = 8a^3$	6 Julia and Sam shared some money in the ratio 4:3 If Sam got £51 how much did they share? J : S 4 3 51 £51 ÷ 3 = £17 17 × 7 = £119	7 Write 525 as a product of prime factors 5 | 525 5 | 105 3 | 21 7 | 7 1 $3 \times 5^2 \times 7$	8 What is the HCF of 12 and 20? 12 20 1, 12 1, 20 2, 6 2, 10 3, 4 4, 5 ~~4, 3~~ ~~5, 5~~ HCF = 4	9 Factorise $12x^3y - 18xy^2$ 1, 12 2, 6 3, 4 1, 18 2, 9 3, 6 $6xy(2x^2 - 3y)$	10 If a typist can type 50 words per minute, how long will it take to type 40 pages with 250 words per page? 50 w.p.m 250 words = 50 × 5 = 5 minutes 40 pages = 5 × 40 = 200 minutes	11
12 $\frac{1}{3} - \frac{1}{4}$ ×4 ×3 $\frac{4}{12} - \frac{3}{12} = \frac{1}{12}$	13 List the factors of 24 1, 24 2, 12 3, 8 4, 6 ~~6, 4~~ 1, 2, 3, 4, 6, 8, 12, 24	14 What is 90 less than 10 thousand? 0 9 9 10 ~~10,000~~ − 90 9910 9910	15 Which is longer: 1,000 000 seconds or 10 days? 1 min = 60 s 1 hour = 60 × 60 = 3600 1 day = 3600 × 24 = 86400 10 days = 864 000	16 Expand and simplify $3(t + 4) - 2(4t + 1)$ $3t + 12 - 8t - 2$ $-5t + 10$	17 One of the students in a class is chosen at random. The probability that this student is a girl is 3/5 There are 12 boys in the class. Work out the total number of students in the class. B $\frac{2}{5}$ G $\frac{3}{5}$ Boy $= \frac{2}{5} = 12$ $\frac{1}{5} = 6$ All students = 6 × 5 = 30	18
19 The area of the cross section of a prism is 30 cm² and it is 25 cm long. Work out the volume of the prism. 30 × 25 750 cm³	20 Work out 15 x 11 + 9 x 15 without a calculator 15(11 + 9) = 15(20) = 300	21 Write down the first 4 terms of the sequence 2n + 4 2×1+4 2×2+4 2×3+4 2×4+4 6 8 10 12	22 Solve $2p - 2 = 11$ +2 +2 $2p = 13$ $p = \frac{13}{2}$ $p = 6.5$	23 Simplify $\frac{6 + 8}{6 \times 8}$ $\frac{14}{48} = \frac{7}{24}$	24 'A' of circle $= \pi \times 5^2$ $= 25\pi = 78.5 cm^2$ What is the total area that is shaded? $100 - 25\pi$ $= 21.5 cm^2$	25  area of square = 100 cm²
26 Work out 126 x 14 without a calculator 1764	27 Work out 22.5% of £180 without a calculator 10% = 18 5% = 9 $2\frac{1}{2} = 4.5$ 18 18 4.50 4050 £40.50	28 $\frac{2}{3} + \frac{1}{4}$ $\frac{8}{12} + \frac{3}{12}$ $\frac{11}{12}$	29 Write 501 in standard form 5.01×10^2	30 Calculate $1^3 + 2^3 + 3^3$ 1 + 8 + 27 36	31 Write 54.0099 in standard form 5.40099×10^5	**REMEMBER:** THE BEST WAY TO REVISE MATHS IS TO "DO MATHS"!