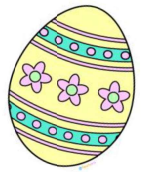
April

"Genius is 10% inspiration, 90% perspiration."
- Thomas Edison



Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	1 State the mode: Size / Frequency 3 / 4 4 / 2 5 / 9	2 Write the following numbers in ascending order: $\frac{53}{100}$ 5% $\frac{9}{20}$ 0.305	3 Expand and simplify: $(x+6)^2$	4 Alex wins a giveaway and chooses any two prizes from; a book, pens, stencils, or stickers. List all the combinations of two prizes that could be chosen.	5 Round the following to two significant figures: a) 486 017 b) 0.032085	6 Expand and simplify: $4(x+8) - 2(x-5)$
7 Find x, correct to one decimal place. 9 cm, x cm, 12 cm	8 In an animal shelter, Cats : Dogs = 4 : 9. There are 52 cats at the shelter. How many dogs are there?	9 Find the nth term of the sequence: 1 6 11 16 ...	10 Joe has 42 red and 70 blue sweets. He wants to make as many bags as possible, with the same number of red sweets and the same number of blue sweets in each one. What is the greatest number of bags he can make?	11 The cost of 3 textbooks is £21. How much will 10 of the same textbooks cost?	12 A regular polygon has an exterior angle of $40°$. How many sides does it have?	13 A month of the year is chosen at random. What is the probability of picking a month ending in a 'y'?
14 Work out: a) $5.6 \div 0.7$ b) $31.62 \div 0.6$	15 Solve the simultaneous equations: $9x + 3y = 39$ $2x + y = 9$	16 Calculate the volume of the prism: 4cm, 5cm, 6cm, 10cm	17 The value of gold decreases from £2400 to £2250 per ounce. Calculate the percentage decrease.	18 Simplify: $12t - 5 - t + 9$	19 Work out: $\begin{pmatrix}2\\7\end{pmatrix} - \begin{pmatrix}8\\-1\end{pmatrix}$	20 Work out: $2\frac{3}{8} + 3\frac{5}{6}$ Give your answer in its simplest form.
21 Factorise fully: a) $25p - 40$ b) $36a^2 + 63ab$	22 Alfie invests £2000 for 4 years at 3% simple interest per annum. Work out the total value of the investment at the end of the 4 years.	23 A bag contains 3 red and 4 black marbles. One is chosen, put back, then a second one chosen. What is the probability they are both the same colour?	24 Solve: a) $6(x+5) = 51$ b) $\frac{x+7}{2} = 3$	25 Find the area of the trapezium. Give units with your answer. 8m, 5m, 4m, 6m, 10m	26 Write 135 as a product of prime factors.	27 Find the value of $\sqrt{a^2+9}$ when $a = -4$
28 Estimate the mean weight for the data below. Weight (g) / Frequency $0 < w \leq 200$ / 3 $200 < w \leq 300$ / 5 $300 < w \leq 500$ / 2	29 Calculate $600 \times (3 \times 10^9)$ Give your answer in standard form	30 Find the equation of the line parallel to $y = x + 9$, that passes through the point $(7,1)$				

To do's for this month:

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Important dates:

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