## Four Maths Questions at Different Levels – Question Set 1

Harder higher tier GCSE Easy higher tier GCSE There are *n* sweets in a bag. 6 of the sweets are orange. The rest of the sweets are yellow. Solve the simultaneous equations Hannah takes at random a sweet from the bag. She eats the sweet. 5x + y = 21Hannah then takes at random another sweet from the bag. x - 3y = 9She eats the sweet. The probability that Hannah eats two orange sweets is  $\frac{1}{3}$ (a) Show that  $n^2 - n - 90 = 0$ (b) Solve  $n^2 - n - 90 = 0$  to find the value of *n*. Edexcel GCSE, Nov 2018, Paper 1 Edexcel GCSE, Paper 1, 2015 Something interesting Alevel Solve the simultaneous equations  $3^{444} + 4^{333}$  $e^{x} - 2e^{y} = 3$  $e^{2x} - 4e^{2y} = 33$ Is the number above a multiple of 5? Give your answer in an exact form. OCR Practice Papers, Set 4, Paper 1 UKMT Questions from years back

Answers at www.colmanweb/easter2020

## Four Maths Questions at Different Levels – Answers Set 1

Easy higher tier GCSE

Something interesting

5x + y = 21x - 3y = 9x = 4.5, y = -1.5

## Harder higher tier GCSE

ultaneous equations + $y = 21$ - $3y = 9$ 5, $y = -1.5$	There are <i>n</i> sweets in a bag. 6 of the sweets are orange. The rest of the sweets are yellow. Hannah takes at random a sweet from the bag. She eats the sweet. Hannah then takes at random another sweet from the bag. She eats the sweet. Hannah then takes at random another sweet from the bag. She eats the sweet. The probability that Hannah eats two orange sweets is $\frac{1}{3}$ (a) Show that $n^2 - n - 90 = 0$ (b) Solve $n^2 - n - 90 = 0$ to find the value of <i>n</i> .
Edexcel GCSE, Nov 2018, Paper 1	Edexcel GCSE, Paper 1, 2015
	A Level Solve the simultaneous equations
$+ 4^{333}$	$e^x - 2e^y = 3$
	$e^{2x} - 4e^{2y} = 33$ .
bove a multiple of 5?	x = ln7, y = ln2
Is in 1 and $4^{2n+1}$ ends in 4 1 1 + 4 = 5	Give your answer in an exact form.
JKMT Questions from years back	OCR Practice Papers, Set 4, Paper 1

 $3^{444} + 4^{333}$ 

Is the number above a multiple of Yes, since  $3^{4n}$  ends in 1 and  $4^{2n+1}$  en and 1 + 4 = 5UKMT Questions from years back