

## LANGUAGES AND CODING: WHO IS THE ENIGMATIC CHARACTER?

### Codeword 3

An Enigmatic Character (who was mentioned in the VC session earlier) is hiding his/her identity in coded messages. Can you discover who it is?

Like the British code-breakers working at Bletchley Park during WWII, you have access to some weather reports. These may be in English, French, Spanish or German. You will need to:

- Use the information gained from the Frequency Analysis task to decide which language each text was originally in. Note that accents were removed before coding the original text.
- Solve the clues. Each will give you 3 coordinates: (sentence number, word number, letter), so for instance (2, 14, 3) means the 2<sup>nd</sup> sentence, 14<sup>th</sup> word, 3<sup>rd</sup> letter.
- Some clues are written as coordinates in brackets, so (letters in the alphabet, days in a week, hours in a day) would give (26, 7, 24).
- Other clues give you a single number. Keep the digits in order, and decide what coordinates they could give, so if the answer was 432, the coordinates would be (4, 3, 2).
- Use the coordinates to find letters in the coded text which will give you a codeword.
- Move all the letters forward or backward to get a word or phrase recognisable in the original language of the piece of text: English = 4 places, French = 2 places, German = 2 places, Spanish = 2 places.
- Use the codewords and the information from the first VC session to find the identity of the Enigmatic Character.
- If you want to decode the text, feel free, but it isn't necessary to find the identity of the Enigmatic Character.

### Text 3

YC XYHKU GKHQU TI YPDYXHAYKWIQU XYSHYKWAYKWY SCHAIN AGL VXHUN,  
THYCU L KHYFY.

CIN WYADYXIWXIN NY TIK AIKWKYKHQU DUX QYZIEU QY SYXU OXIQUN L YC IOGI  
SUKOYCIQI L YC THYCU TIK SIGNIQU KGAYXUNUN DXUZCYAIN.

TUL KU TI NHQU GKI YPSYDSHUK, AIXSIQU DUX WYADYXIWXIN ZIEIN L CCGFHIN  
YK GK QHI AGL KGZCIQU.

YC OXIKHRU L CI KHYFY QYC KUXUYNWY IVYSWIXI I CI AILUX DIXWY QYC DIHN.

YC NUC DUQXI ZXHCCIX I HKWYXFICUN NUZXY WUQU YK YC NGXUYNWY, QUKQY  
NY YNDYXI WIAZHYK MGY CUN FHYKWUN IAHKUXYK, YNDYSHICAYKWY TISHI YC  
NGX.

CUN FHYKWUN NYXIK AILUXAYKWY YK QHXYSYSHUK NGXUYNWY L YNWU WXIYXI  
SUKNHOU GK CHOYXU IGAYKWU QY CIN WYADYXIWXIN.

YNWU NY FYXI XYVCYEIQU IC SUAHYKRU QYC AYN YKWXIKWY SGIKQU CIN  
WYADYXIWXIN NGZHIX L CI CCGFHI NGNWHWGHXI I CI KHYFY.

Language: .....

**Clues for codeword 3**

Clue	Sentence coordinate	Word coordinate	Letter coordinate	Letter in text	Letter in code-word
(3 <sup>rd</sup> triangle number, unlucky for some, trinity)					
(Lucky clover leaf, wives of Henry VIII, ordinary clover leaf)					
(Wonders of the ancient world, lines of symmetry of a square, spatial dimensions)					
5 <sup>5</sup> + 15 <sup>th</sup> prime, rearranged into coordinates					
(Fourth root of 16, pounds in a stone, 8% of 50)					
(Binary, dozen, even prime)					
Square of sum of 1 <sup>st</sup> 3 squares, minus 5					
4 <sup>4</sup>					
( $x - 3, x + 2, x$ ) where $x^2 = 25$					
( $x + 2, 2x, x$ ) where $x$ is the cube root of 125					
(Sides of the building in which the US Dept of Defense is located, 5 <sup>th</sup> triangle number, order of rotational symmetry of an equilateral triangle)					
$\left(\frac{x}{5}, x, \frac{x+1}{8}\right)$ where $x$ is the median of the 5 <sup>th</sup> and 6 <sup>th</sup> primes					
( $x, 2x, x^2$ ) where $x$ satisfies $\frac{5x-1}{7} = x-1$					
Product of 6 <sup>th</sup> prime and cube of 2 <sup>nd</sup> prime and first two primes					
(1 <sup>st</sup> number which is both prime and a triangle number, $2^3 - 1$ , faces of a cube)					
( $x^0, 2x, x$ ) where $x$ satisfies $x^3 = 125$					
(Vertices on a tetrahedron, baker's dozen, a third of a third of 9)					
2 <sup>8</sup> + 1					
( $x, x^3, x^0$ ) where $x$ is the solution to $2x + 1 = 5(x - 1)$					

Codeword: .....