

Student	Han Xiyu	68
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Part 1

	Available	Marks
Create a matrix <code>vigenere</code> that contains the character data. Display this matrix.	5	5
Using the keyphrase <code>UWTSDSWANSEA</code> , encrypt the message <code>CAPTURETHEFLAG</code> using the method described. You should create a vector <code>keyphrase</code> to hold the keyphrase, a vector <code>plaintext</code> to hold the plaintext and a vector <code>ciphertext</code> to hold the ciphertext. Display the plaintext and the ciphertext.	25	16
Decrypt the following ciphertext using the keyphrase <code>RPROGRAMMING</code> and store the result in the vector <code>plaintext</code> . <code>ETMSXWISTBNHRIKZKKHMFGBAUDECZEEQPBBBCZC</code>	25	16
Commenting and use of white space	5	3
	TOTAL	40
Comments White space is good but more comments, would be better. Q1: Effective code for generating the matrix. Q2: The final vectors would be better starting and ending as vectors with a single multi-element string rather than lots of elements of single characters. Fine otherwise. Q3: The final vectors would be better starting and ending as vectors with a single multi-element string rather than lots of elements of single characters. Fine otherwise.		

Part 2

	Available	Marks
Explain how your code works (including a flow chart) and explain how you tested your code (include examples of the code and data used). TASK 1	10	7
Explain how your code works (including a flow chart) and explain how you tested your code (include examples of the code and data used). TASK 2	10	7
Explain how your code works (including a flow chart) and explain how you tested your code (include examples of the code and data used). TASK 3	10	7
A reflection on what you found challenging, what you learned, and what you would do differently next time.	10	7
	TOTAL	28
Comments A short introduction would be helpful. This would also be better written in paragraphs rather than bullet points. Q1: Good description. Q2: Good description. Q3: Good description. Good reflection. The suggestion of moving to a mod26 formulaic approach is a good one.		