

Homework Encryption Activity

Homework Activity: Encryption Decryption

In this assignment, I worked on decrypting a monoalphabetic substitution cipher. I analyzed the ciphertext, noted the frequency of symbols, and identified patterns in the code. I discovered that the pairs starting with "6" or "7" and the "20" pairs were spaces. Using these patterns, I converted the hexadecimal code to ASCII to reveal the hidden message.

The screenshot shows the RapidTables Hex to String Converter interface. The 'From' dropdown is set to 'Hexadecimal' and the 'To' dropdown is set to 'Text'. A large text area contains the hex code: 0:6a:65:/3:/3:b1:6/:65:20:62:65:61:/b:/3:b5:20:62:6f:/4:b8:20:68:65:78:61:64:65:63:69:6d:61:6c:20:61:6e:64:20:41:53:43:49:49:20:61:72:65:20:77:65:6c:6c:20:6b:6e:6f:77:6e:20:63:68:61:72:61:63:74:65:72:20:73:65:74:73:20:61:6e:64:20:74:68:65:72:65:20:61:72:65:20:61:75:74:6f:6d:61:74:69:63:20:63:6f:6e:76:65:72:74:65:72:73:20:6f:6e:6c:69:6e:65:2e. Below this, under 'Character encoding', 'ASCII' is selected. At the bottom, there are 'Convert', 'Reset', and 'Swap' buttons, along with 'Copy' and 'Save' links. A note states: 'This is not a secure message because both hexadecimal and ASCII are well known character sets and there are automatic converters online.' To the right of the converter is a sidebar for 'NUMBER CONVERSION' containing links to various converters like ASCII, Binary, Decimal, and Base converters. Above the sidebar is an advertisement for '2 Pack Twin...' with a price of \$24.95.

[Hex to String | Hex to ASCII Converter](#)

This exercise helped me understand how early ciphers worked and how frequency analysis and pattern recognition can be used to break simple encryption schemes.