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| **Skill 7.01 Exercise 1** |
| A computer uses the following binary encoding to store the following symbols,   |  |  | | --- | --- | | **Binary** | **Symbol** | | 01 | ☮️ | | 10 | ❤️ | | 11 | 😀 | |
| What is ☮️😀❤️☮️😀❤️in binary |
| What sequence would the following binary encoding display?  01101011 |

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| **Skill 7.01 Exercise 1** |
| The ASCII characters for the first 8 capital letters in our alphabet are shown below,   |  |  | | --- | --- | | **Binary** | **Character** | | 1000001 | A | | 1000010 | B | | 1000011 | C | | 1000100 | D | | 1000101 | E | | 1000110 | F | | 1000111 | G | | 1001000 | H | |
| What is “CAFE” in binary |
| What is the code for the letter Z? |
| Decode the following sequence, 01000011 01001111 01000100 01000101 |

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| **Skill 7.03 Exercise 1** |
| Describe two limitations of the ASCII system |

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| **Skill 7.05 Exercise 1** |
| How many characters are stored in the 7 bytes shown?  11110000 10011111 10011000 10000000 01110110 11000011 10110111 |
| Use this tool to see what the characters are,  <https://onlinetools.com/utf8/convert-binary-to-utf8>  Copy and paste them below |
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| Now go here,  <https://onlinetools.com/utf8/convert-utf8-to-binary>  Type some emojis, text, numbers, symbols, whatever you want. Copy and paste your input below |
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| What is your input in binary? Paste this below. How many bytes were needed to encode your input? |
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