**Text Encoding (ASCII & Unicode)**

1. Explain what ASCII and Unicode are. What do we mean when we say that Unicode has multiple encoding schemes? Which is the most common text encoding scheme in countries that use Western European languages like English?

Answer

2. These binary sequences represent an ASCII-encoded text message...

**1010011 1100001 1101100 0100000 1000011 1101111 1101101 1110000**

a) First, convert each 7-digit sequence into a decimal number as you learned in the previous lesson.

**0b1010011** ⇨ Answer

**0b1100001** ⇨ Answer

**0b1101100** ⇨ Answer

**0b0100000** ⇨ Answer

**0b1000011** ⇨ Answer

**0b1101111** ⇨ Answer

**0b1101101** ⇨ Answer

**0b1110000** ⇨ Answer

b) Next, convert each number to a letter by looking it up in an [ASCII table](https://en.wikipedia.org/wiki/ASCII), or by using Python’s **chr** function. Write the decoded message.

Answer

3. Determine the Unicode value for each of these characters using a Unicode Lookup tool or Python’s **ord** function. Note that code values less than 128 are the same in both ASCII and Unicode. Codes greater than 127 only work in Unicode.

a) @ ⇨ Answer

b) © ⇨ Answer

c) θ ⇨ Answer

d) ℃ ⇨ Answer

e) ∞ ⇨ Answer

f) 🤣 ⇨ Answer