

Which non-ASCII symbols are available on a german keyboard hooked up to a default windows 11 instance?

€äöüÄÖÜßµ°²³´áéíóúÁÉÍÓÚ

Which purpose do the ASCII-characters 00-20 and 7F serve?

Controlling the teletype connected to the machine (most importantly, moving the write head).

Fill in the table

Unicode	00BA	006E	03A3	00C6	30B7	2122	262D	1F597	1F4A9
Character	°	n	Σ	Æ	シ	™	Ⓜ	👉	💩

1. What are the characters Æ in bitcode?
2. Which encoding is probably the correct one?
3. Which character is shown in the correct encoding instead of Æ?

1. 00C3 00A4 — 11000001110100100
2. UTF-8
3. ä — 0xE4

Bei UTF-8 werden 1-4 Byte verwendet, um ein Zeichen zu speichern.

1. How many bytes are required to display this text in ISO 8859-1 or Windows-1252/ANSI encoding?
2. Test this by saving the text in a ISO 8859-1 or Windows-1252/ANSI encoded file and checking the file size.
3. Is the file size different between Windows and Linux?
4. Does the file size change if encoded with UTF-8?

1. 66 bytes (65 characters in 8-bit encoding) + Trailing Newline
2. -||-
3. On windows, actual file size is 67 due to CR-LF encoding, whereas Linux uses LF encoding to designate EOF.
4. No, since all the characters fit within the standard ASCII range.

Which Unicode character is F0 9F 91 8D?



Find a way to compress the encoding

Encoded sequence ERDBEERGELEE

ASCII	B	D	E	G	L	R
Occurences	1	1	6	1	1	2

ASCII	B	D	E	G	L	R
Uncompressed binary	000	001	010	011	100	101

ASCII	B	D	E	G	L	R
Compressed binary	0011	0010	1	0000	0001	01

Uncompressed sequence: 010 101 001 000 010 010 101 011 010 100 010 010 (36)

Compressed sequence: 1 01 0010 0111 1 1 01 0000 1 0001 1 1 (26)

