If you have Node Installed, run "node utf8_cli_examination.js"

Find Any Glyph that you want to analyze

And Enter It Into the Command Line

For Example:

🧛

(Also Try ASCII values, ❄️, 🇳🇦, 🇺🇸)

You can see the flags is made from a combination of regional indicators corresponding to the Country Code "N"+"A" for Namibia and "U" + "S" for United States

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Code Point at position 0: U+1f9db,   Number Bytes 4, Grapheme 1 : 🧛 : (VAMPIRE)
        Raw Hexdecimal Representation: f09fa79b

Byte By Byte Calculation
        f0 : 11110000
              0(xxxxx000) * 262144 = 0
        9f : 10011111
              31(xx011111) * 4096 = 126976
        a7 : 10100111
              39(xx100111) * 64 = 2496
        9b : 10011011
              27(xx011011) * 1 = 27
        Calculated Decimal Value = 129499
        Calculated Hexadecimal Value = 1f9db


Code Point at position 4: U+1f3fc,   Number Bytes 4, Grapheme 2 : 🏼 : (EMOJI MODIFIER FITZPATRICK TYPE-3)
        Raw Hexdecimal Representation: f09f8fbc

Byte By Byte Calculation
        f0 : 11110000
              0(xxxxx000) * 262144 = 0
        9f : 10011111
              31(xx011111) * 4096 = 126976
        8f : 10001111
              15(xx001111) * 64 = 960
        bc : 10111100
              60(xx111100) * 1 = 60
        Calculated Decimal Value = 127996
        Calculated Hexadecimal Value = 1f3fc


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Grapheme 1 and Grapheme 2 Corresponding to that Vampire Emoji

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NA
Code Point at position 0: U+1f1f3,   Number Bytes 4, Grapheme 1 : N : (REGIONAL INDICATOR SYMBOL LETTER N)
        Raw Hexdecimal Representation: f09f87b3

Byte By Byte Calculation
        f0 : 11110000
                0(xxxxx000) * 262144 = 0
        9f : 10011111
                31(xx011111) * 4096 = 126976
        87 : 10000111
                7(xx000111) * 64 = 448
        b3 : 10110011
                51(xx110011) * 1 = 51
        Calculated Decimal Value = 127475
        Calculated Hexadecimal Value = 1f1f3


Code Point at position 4: U+1f1e6,   Number Bytes 4, Grapheme 2 : A : (REGIONAL INDICATOR SYMBOL LETTER A)
        Raw Hexdecimal Representation: f09f87a6

Byte By Byte Calculation
        f0 : 11110000
                0(xxxxx000) * 262144 = 0
        9f : 10011111
                31(xx011111) * 4096 = 126976
        87 : 10000111
                7(xx000111) * 64 = 448
        a6 : 10100110
                38(xx100110) * 1 = 38
        Calculated Decimal Value = 127462
        Calculated Hexadecimal Value = 1f1e6


NA
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Nambia Flag Encoding

As you can see some graphemes have no meaningful or no display
at all associated with them and are solely for modifying or
combining with other code-points to create some meaning. In this
case the combination of 2 mean something.

The x's correspond to masked non-value-encoding bits
For example the xxxxx000 , there are 5 x's because the number of 1s to start the first
byte of a grapheme / code-point followed by a 0 encode the number of bytes in that
code-point.
The next three can then hold a value.

The xx011111 is because the continuation bytes to a code-point start with 10, which
encodes no value.

You can see for the continuation bytes the base is 64 because there are 6 encoding
bits. (64, 4096 you can see). The first bytes either have 3,4,5, or 7 encoding bits.

For single byte values, it starts with a 0 because it has no continuation bytes, ASCII values are the only bytes that you'll see that start with a 0 in UTF-8.

Expanding from 3 to 4 bytes gives you
(3 more encoding bits in the first byte)
(Replaces 4 encoding bits in the 3rd from last byte with 6 encoding bytes instead)
So 5 more encoding bits or 32x more encoded values.