hwemoji v1.0: pdfLaTeX emoji support

Hwy

2022/11/10

Introduction

- To the author's knowledge, there was no package on CTAN to date that (a) enables Unicode emojis in pdfLaTeX and (b) supports emoji sequences. There is now.
- Emoji sequences are in general emojis formed of multiple consecutive Unicode characters. The details can be found in the specifications at `https://unicode.org/reports/tr51/`. For example, `U+1FAF1` (🫱) and `U+1F3FD` (🏽) side by side should form (🫱🏽).
- This package makes use of the Twemoji project's digital assets, as licensed under the CC-BY 4.0. The project can be found at `https://github.com/twitter/twemoji`.
- This package supports Twemoji's implementation of Unicode emojis as of Unicode 14.0.0, with the exceptions of: `U+0023--U+20E3`, `U+002A--U+20E3`, `U+0030--U+20E3`, `U+0031--U+20E3`, `U+0032--U+20E3`, `U+0033--U+20E3`, `U+0034--U+20E3`, `U+0035--U+20E3`, `U+0036--U+20E3`, `U+0037--U+20E3`, `U+0038--U+20E3`, and `U+0039--U+20E3`. Supporting these emojis necessitates making the characters #, *, 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 active, which would be at best disastrous.

Troubleshooting

- `U+00A9` and `U+00AE` are now rendered as the emojis © and ® respectively. If another version of these characters is preferred, override their definitions with `\DeclareUnicodeCharacter`.
- Wrap emojis in braces when passing as arguments. For example, to get $\phi_{👩}$, use `\phi_{👩}`, not `\phi_👩`.

Examples

A classic

98% of people can't solve this 😂

$$🍇 + 🍇 + 🍇 = 3$$

$$🍪 - 🍇 - 🍇 = 0$$

$$🥪 = \mathbb{Z} \quad 🍔 = 🥪/🍪🥪 \quad 🌭 = P^n(\mathbb{R})$$

$$H^*(🌭; 🍔) = \bigoplus_{k \in \mathbb{N}} H^k(🌭; 🍔) \text{ has a ring structure}$$

$$🍕(-, B) : \mathcal{C} \to \textbf{Set} \text{ is contravariant}$$

$$🍕(A, B) = \{\phi : A \to B \mid \phi \text{ is a morphism}\}$$

Given that 🍌 is the derived functor of 🍕 and the sequence

$$0 \to 🍌🍇🍔(H_{i-🍇}(🌭; 🍔), 🥪) \to H^i(🌭; 🥪) \xrightarrow{h}$$
$$🍕🍔(H_i(🌭; 🍔), 🥪) \to 0$$

is exact,

describe $H^*(🌭; 🍔)$ in terms of polynomial rings over 🍔.

All supported emojis