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|------------|---|-------------------------|-----------------------------------|
| Latin | Malayalam | Tagbanwa | General Punctuation |
| Greek | Sinhala | Khmer | Spacing Modifier Letters |
| Cyrillic | Thai | Mongolian | Currency Symbols |
| Armenian | Lao | Limbu | Combining Diacritical Marks |
| Hebrew | Tibetan | Tai Le | Combining Marks for Symbols |
| Arabic | Myanmar | Kangxi Radicals | Superscripts and Subscripts |
| Syriac | Georgian | Hiragana | Number Forms |
| Thaana | Hangul Jamo | Katakana | Mathematical Operators |
| Devanagari | Ethiopic | Bopomofo | Mathematical Alphanumeric Symbols |
| Bengali | Cherokee | Kanbun | Braille Patterns |
| Gurmukhi | Unified Canadian Aboriginal Syllabic | Shavian | Optical Character Recognition |
| Gujarati | Ogham | Osmanya | Byzantine Musical Symbols |
| Oriya | Runic | Cypriot Syllabary | Musical Symbols |
| Tamil | Tagalog | Tai Xuan Jing Symbols | Arrows |
| Telugu | Hanunoo | Yijing Hexagram Symbols | Box Drawing |
| Kannada | Buhid | Aegean Numbers | Geometric Shapes |

FIGURE 2.16 Example alphabets in Unicode. Unicode version 4.0 has more than 160 “blocks,” which is their name for a collection of symbols. Each block is a multiple of 16. For example, Greek starts at 0370_{hex}, and Cyrillic at 0400_{hex}. The first three columns show 48 blocks that correspond to human languages in roughly Unicode numerical order. The last column has 16 blocks that are multilingual and are not in order. A 16-bit encoding, called UTF-16, is the default. A variable-length encoding, called UTF-8, keeps the ASCII subset as eight bits and uses 16 or 32 bits for the other characters. UTF-32 uses 32 bits per character. New Unicode versions are released every June, with version 13.0 in 2020. Versions 9.0 to 13.0 added various Emojis, while earlier versions added new language blocks and hieroglyphs. The total is almost 150,000 characters. To learn more, see www.unicode.org.