## Hello, I'd

## 17ke you

tomeet

catalan Jove xef, porti whisky amb quinze glaçons d’hidrogen, coi! Young chef, bring whisky with fifteen hydrogen ice cubes, damn! Aqueix betzol, Jan, comprava whisky de figa. That idiot, Jan, was buying fig whisky. czech Příliš žlutoučký kůň úpěl dábelské ódy. Too yellowish horse moaned devil's odes. DANish Høj bly gom vandt fræk sexquiz på wc. Tall shy groom won dirty sex quiz on W.C. Quizdeltagerne spiste jordbær med fløde, mens cirkusklovnen Walther spillede på xylofon. The quiz contestants ate strawberry with cream while Walther the circus clown played the xylophone. DuTcH Doch Bep, flink sexy qua vorm, zwijgt. But Bep, thorough sexy of shape, keeps silent. Sexy qua lijf, doch bang voor 't zwempak. Sexy of body, though scared of the swimsuit. Pa's wijze lynx bezag vroom het fikse aquaduct. Dad's wise lynx piously observed the sturdy aqueduct. ESPERANTo Eble ĉiu kvazaŭ-deca fuŝhoraĵo ĝojigos homtipon. Maybe every quasi-fitting bungle-choir makes a human type happy. Laŭ Ludoviko Zamenhof bongustas freŝa ĉeĥa manĝajo kun spicoj. AccordingtoLudwigZamenhof,freshCzechfoodwithspicestastesgood. FINNISH Törkylempijä vongahdus Muckysnogger booty-call. FRENCH Portez ce vieux whisky au juge blond qui fume. Go take this old whisky to the blond judge who smokes. Bâchez la queue du wagon-taxi avec les pyjamas du fakir. Tarpolin-up the taxi-railcar tail with the fakir's pajamas. Voyez le brick géant que j'examine près du wharf. See the giant brick which I examine near the wharf. GERMAN Sylvia wagt quick den Jux bei Pforzheim. Sylvia dares quickly the joke at Pforzheim. Franz jagt im komplett verwahrlosten Taxi quer durch Bayern. Franz chases in the completely shabby cab straight through Bavaria. Victor jagt zwölf Boxkämpfer quer über den großen Sylter Deich. Victor chases twelve box fighters across the great dam of Sylt. "Fix, Schwyz!" quäkt Jürgen blöd vom Paß "Quick, Schwyz!" Jürgen squawks zanily from the pass. Falsches Üben von Xylophonmusik quält jeden größeren Zwerg. Wrong practising of xylophone music bothers every larger dwarf. GREEK Гa̧í $\kappa$ кaı $\mu \nu \rho \tau \iota \varepsilon \varsigma ~ \delta \varepsilon v ~ \theta a ~ \beta \rho \omega \pi \iota a ~ \sigma \tau о ~$ хрuбapı $\xi \dot{\varepsilon} \varphi \omega \tau 0$. No more shall I see acacias or myrtles in the golden clearing.

 sapphire, denoting profundity of soul. \{Notable pangrams found occurring in ancient Greek literature include: Odyssey 9.179-181; Homeric Hymn to Hermes 22-24; Pindar, Olympian 6 21-24; Aeschylus, Agamemnon 439-444; Euripides, Alcestis 169-172; Hercules 927-930; Bacchae 719b-723a; Isaeus, De Hagnia, section 31 ( $\varepsilon \lambda \dot{\varepsilon} \lambda \cup \theta \varepsilon v . . . \lambda \dot{\eta} \psi \varepsilon \sigma \theta a ı)$; Lycurgus, Against Leocrates 100.3-6; Lysias 12.93.3-5; Thucydides, from the last four words of 4.115 .2 through the first ten

GINA IS A TYPEFACE with a robust texture and an extensive set of glyphs that have a distinct, legible appearance.
The Gina family includes Greek and accented characters, mathematical symbols, alternate forms, italic and small cap styles, and more.


Gina and Gina Italic are available as PostScript-based OpenType fonts.


## A SERIF TYPEFACE FOR BOOKS AND MORE

Although many kinds of material may benefit from Gina's features, it was designed for technical and academic publications that call for immersive reading as well as clarity of complex texts. The fine details in Gina and Gina Italic reveal an interplay of forms that swell gently in some places and crisply intersect in others, creating a rhythm between its gentler and its more assertive shapes.

Gina has a sturdy weight that produces a strong text colour, even at small sizes. It includes real superiors, inferiors, and small caps adjusted to work with the main text size.

Individual characters fit together easily to promote overall ease of reading, but they can also combine in equations, formulae, foreign terms, or precise technical language without ambiguity. Latin and Greek characters, numerals, and mathematical symbols all work in harmony as well as on their own. OpenType features allow access to alternate forms and styles for some characters to further enhance their clarity.



## DISTINCT FORMS

Gina makes it easy to distinguish between forms that might be confused for one another. This is always a benefit for the reader, but it is crucial for mathematical and scientific texts that may mix roman, italic, and Greek characters in unfamiliar sequences. Since any ambiguity about which character is which may change the meaning of the equation, it is essential that all characters can be recognized at a glance.

Below: the alternate lowercase a, italic a, and Greek alpha. Bottom: the lining figure one, the uppercase I, the lowercase l and $i$, and the oldstyle figure one.



Above: the lowercase $v$, italic $v$, and Greek nu.
Below: the lowercase p, italic p, and Greek
rho. Bottom: the lowercase $u$, italic $u$, and
Greek upsilon.


## NUMERALS

Gina contains four sets of full-size numerals to meet a variety of typesetting needs. The default style is lining figures with proportional spacing, but you can also set lining figures with tabular spacing or oldstyle figures with either proportional or tabular spacing. (Inferior and superior styles use lining figures spaced proportionally, and small caps use proportional oldstyle figures by default.)

## 1234567890 01234567890

 1234567890 01234567890

Proportional lining figures

| GBP $(£) 1=$ |  | EUR $(€) 1=$ |  | YEN $(¥) 100=$ | USD (\$)1= |  |  |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- | ---: |
| EUR | 1.47667 | USD | 1.37760 | EUR 0.59581 | EUR | 0.72590 |  |
| USD | 2.03426 | GBP | 0.67720 | USD | 0.82078 | GBP | 0.49158 |
| YEN | 247.84369 | YEN | 167.83992 | GBP | 0.40348 | YEN | 121.83500 |

## Tabular lining figures

| GBP $(£) 1=$ |  | EUR $(€) 1=$ |  | YEN $(¥) 100=$ | USD (\$) $1=$ |  |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- |
| EUR | 1.47667 | USD | 1.37760 | EUR 0.59581 | EUR | 0.72590 |
| USD | 2.03426 | GBP | 0.67720 | USD | 0.82078 | GBP |
| UEN | 247.84369 | YEN 167.83992 | GBP | 0.40348 | YEN 121.83500 |  |

Proportional oldstyle figures (with small caps)

| GBP $(£) 1=$ |  | EUR $(€) 1=$ |  | YEN $(¥) 100=$ |  | USD $(\$) 1=$ |  |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- | ---: |
| EUR | 1.47667 | USD | 1.37760 | EUR | 0.59581 | EUR | 0.72590 |
| USD | 2.03426 | GBP | 0.67720 | USD | 0.82078 | GBP | 0.49158 |
| YEN | 247.84369 | YEN | 167.83992 | GBP | 0.40348 | YEN | 121.83500 |

Tabular oldstyle figures (with small caps)

| GBP $(£) 1=$ |  | EUR $(€) 1=$ |  | YEN $(¥) 100=$ |  | USD $(\$) 1=$ |  |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- | ---: |
| EUR | 1.47667 | USD | 1.37760 | EUR | 0.59581 | EUR | 0.72590 |
| USD | 2.03426 | GBP | 0.67720 | USD | 0.82078 | GBP | 0.49158 |
| YEN | 247.84369 | YEN | 167.83992 | GBP | 0.40348 | YEN | 121.83500 |



## OPTICAL SIZES

Gina and Gina Italic contain superior and inferior forms for numerals and the basic Latin alphabet. In addition, Gina's roman style includes small caps for the Latin and Greek alphabets, including some accented characters and punctuation adjusted for use with the smaller forms.

Numerals drawn for use at smaller optical sizes can be positioned for use as numerators and denominators in case fractions. (Some precomposed fractions are also available). Superior and inferior characters are positioned so that they can be stacked on top of one another.

The small caps and superior/inferior glyphs have all been modified so that they relate properly to their full-size counterparts. Details such as counters and stroke weights, for instance, are larger in proportion to the overall size to maintain the overall colour of the text.

[^0]


Superior, inferior, and small cap forms in Gina are more than just small copies of their full-size counterparts. Rather, they are optimized to blend easily with them.


## MATHEMATICS

Equations, chemical formulae, tables, and other combinations of text, numerals, and symbols need glyphs with enough individual clarity that they can be easily read when appearing outside of typical word shapes, or when shown in very small sizes. Equations, for example, may feature a mix of italic characters, Greek characters, and mathematical symbols, any of which may be shown at a typical text size or smaller.

Although Gina was primarily designed for text, its design accommodates the demands of mathematical material. It includes a large set of symbols that enable the setting of a wide variety of basic equations.

$x_{t}^{\prime}=h(z) F_{2}-g(y) F_{3}, y_{t}^{\prime}=f(x) F_{3}-h(z) F_{1}, z_{t}^{\prime}=g(y) F_{1}-f(x) F_{2}$
Here, $F_{n}=F_{n}(x, y, z, t)$ are arbitrary functions. First integral:

$$
\int f(x) d x+\int g(y) d y+\int h(z) d z=C_{1}
$$

where $C$ is an arbitrary constant. If the function $F_{n}$ is independent of $t$, then, by eliminating $t$ and $z$ from the first two equations of the system (with the above integral), one arrives at a first-order equation.

### 4.4 FACTORIAL FACTORS

Now let's take a look at the factorization of some interesting highly composite numbers, the factorials:

$$
\begin{equation*}
n!=1 \cdot 2 \cdot \ldots \cdot n=\prod_{k=1}^{n} k, \text { integer } n \geq 0 \tag{4.21}
\end{equation*}
$$

According to our convention for an empty product, this defines 0 ! to be 1 . Thus $n!=(n-1)!n$ for every positive integer $n$. This is the number of permutations of $n$ distinct objects. That is, it's the number of ways to arrange $n$ things in a row: There are $n$ choices for the first thing; for each choice of first thing, there are $n-1$ choices for the second; for each of these $n(n-1)$ choices, there are $n-2$ for the third; and so on, giving $n(n-1)(n-2) \ldots(1)$ arrangements in all. Here are the first few values of the factorial function.

| $n$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $n!$ | 1 | 1 | 2 | 6 | 24 | 120 | 720 | 5040 | 40320 | 362880 | 3628800 |

It's useful to know a few factorial facts, like the first six values, and the fact that 10 ! is about $31 / 2$ million plus change; another interesting fact is that the number of digits in $n$ ! exceeds $n$ when $n \geq 25$.
We can prove that $n$ ! is plenty big by using something like Gauss's trick of Chapter 1:

$$
n!^{2}=(1 \cdot 2 \cdot \ldots \cdot n)(n \cdot \ldots \cdot 2 \cdot 1)=\prod_{k=1}^{n} k(n+1-k) .
$$

## LANGUAGE SUPPORT

Gina can be used to set text in many languages that use the Latin and Greek alphabets, including Afrikaans, Albanian, Azeri, Bari, Basque, Belarusian Łacinka, Breton, Catalan, Cornish, Creole, Croatian, Czech, Danish, Dutch, English, Esperanto, Estonian, Faroese, Filipino, Finnish, French, Frisian languages, Friulian, Galician, German, Greek, Guaraní, Hungarian, Icelandic, Irish, Italian, Kabyle, Kalaallisut, Kashubian, Kurmanji Kurdish, Latin, Latvian, Lithuanian, Luganda, Luxembourgish, Malay, Maltese, Latin-based Mandinka, Manx, Norwegian, Pársik (Persian), Polish, Portuguese, Romanian, Romansh, some Sami languages, Scots Gaelic, Serbian, Shelta, Slovak, Slovenian, Sorbian, Spanish, Swedish, Turkish, Vietnamese, Walloon, Welsh, and Wolof.

Gina also contains a wide variety of accent marks that can be combined with the Latin and Greek glyphs to set even more characters than the ones already supplied.


OpenType features assist with some aspects of linguistic support, such as the removal of the Greek tonos from text set with capitals and the substitution of the kreska for the acute accent in Polish.




GREEK TEXT WITH UPPER- AND LOWERCASE

Andrzej Tadeusz Bonawentura Kościuszko, herbu Roch III (ur. 4 lutego 1746, zm. 15 października 1817) - generał polski i amerykański, inżynier fortyfikator, walczył o niepodległość Polski i USA, Najwyższy Naczelnik Siły Zbrojnej Narodowej w insurekcji 1794.


OTAN $\triangle$ E TPIA MEГE $\Theta H$ ANAЛOГON Н, TO ПРЛTON ПРОГ TO TPITON ЬIПムАЕIONA ЛОГОN EXEIN $\Lambda$ ЕГЕТАI НПЕР ПРОГ ТО $\triangle$ EYTEPON.

GREEK TEXT WITH CAPITALS

Andrzej Tadeusz Bonawentura Kościuszko, herbu Roch III (ur. 4 lutego 1746, zm. 15 października 1817) — generał polski i amerykański, inżynier fortyfikator, walczył o niepodległość Polski i USA, Najwyższy Naczelnik Siły Zbrojnej Narodowej w insurekcji 1794.

POLISH TEXT WITH CORRECT ACCENTS


## SETTING TEXT WITH GINA

> The word "mathematics" (Greek: $\mu \alpha \forall \eta \mu \alpha \tau i k \alpha ́$ or mathēmatiká) comes from the Greek $\mu \dot{\alpha} \theta \eta \mu a$ (máthēma), which means learning, study, science, and additionally came to have the narrower and more technical meaning "mathematical study", even in Classical times. Its adjective is $\mu \alpha \theta \eta \mu a \tau \iota к o ́ \varsigma ~(m a t h e ̄ m a t i k o ́ s), ~ r e l a t e d ~ t o ~ l e a r n i n g, ~$ or studious, which likewise further came to mean mathematical. In particular, цаӨпиатıка $\tau \varepsilon \dot{\chi} \vee \eta$ (mathēmatiké tékhnē), in Latin ars mathematica, meant the mathematical art. The apparent plural form in English, like the French plural form les mathématiques (and the less commonly used singular derivative la mathématique), goes back to the Latin neuter plural mathematica (Cicero), based on the Greek plural ta $\mu a \theta \eta \mu a \tau ı \kappa \alpha ́ ~(t a ~ m a t h e ̄ m a t i k a ́), ~$ used by Aristotle, and meaning roughly "all things mathematical". In English, however, mathematics is a singular noun, often shortened to math in English speaking North America and maths elsewhere.

[^1]14 PT. TEXT WITH 20 PT. LEADING
 from the Greek $\mu \dot{\alpha} \theta \eta \mu \alpha$ ( $m a ́ t h e ̄ m a$ ), which means learning, study, science, and additionally came to have the narrower and more technical meaning "mathematical study", even in Classical times. Its adjective is $\mu \alpha \theta \eta \mu a \tau \iota \kappa$ ó (mathēmatikós), related to learning, or studious, which likewise further came to mean mathematical. In particular, $\mu a Ө \eta \mu a \tau \iota k \alpha \tau \varepsilon ́ \chi \vee \eta$ (mathēmatiké tékhnē), in Latin ars mathematica, meant the mathematical art. The apparent plural form in English, like the French plural form les mathématiques (and the less commonly used singular derivative la mathématique), goes back to the Latin neuter plural mathematica (Cicero), based on the Greek plural ta $\mu \alpha \forall \eta \mu \alpha \tau \leqslant \alpha \dot{\alpha}$ (ta mathēmatiká), used by Aristotle, and meaning roughly "all things mathematical". In English, however, mathematics is a singular noun, often shortened to math in English speaking North America and maths elsewhere.

10 PT. TEXT WITH 15 PT. LEADING
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#### Abstract

A mole is the amount of a substance that contains as many elementary entities (atoms, molecules or ions) as there are atoms in 0.012 kilogram (or 12 grams) of carbon-12, where the carbon- 12 atoms are unbound, at rest and in their ground state. The number of atoms in 0.012 kilogram of carbon- 12 is known as the Avogadro constant, and is determined empirically. The currently accepted value is 6.02214179 (30) $\times 10^{23} \mathrm{~mol}^{-1}$.


[^2]A mole is the amount of a substance that contains as many elementary entities (atoms, molecules or ions) as there are atoms in 0.012 kilogram (or 12 grams) of carbon-12, where the carbon- 12 atoms are unbound, at rest and in their ground state. The number of atoms in 0.012 kilogram of carbon-12 is known as the Avogadro constant, and is determined empirically. The currently accepted value is $6.02214179(30) \times 10^{23} \mathrm{~mol}^{-1}$.

[^3]A mole is the amount of a substance that contains as many elementary entities (atoms, molecules or ions) as there are atoms in 0.012 kilogram (or 12 grams) of carbon-12, where the carbon-12 atoms are unbound, at rest and in their ground state. The number of atoms in 0.012 kilogram of carbon- 12 is known as the Avogadro constant, and is determined empirically. The currently accepted value is $6.02214179(30) \times 10^{23} \mathrm{~mol}^{-1}$.

9 PT. TEXT WITH 12 PT. LEADING

A mole is the amount of a substance that contains as many elementary entities (atoms, molecules or ions) as there are atoms in 0.012 kilogram (or 12 grams) of carbon- 12 , where the carbon- 12 atoms are unbound, at rest and in their ground state. The number of atoms in 0.012 kilogram of carbon- 12 is known as the Avogadro constant, and is determined empirically. The currently accepted value is $6.02214179(30) \times 10^{23} \mathrm{~mol}^{-1}$.

[^4]
#### Abstract

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12 PT. TEXT WITH 16 PT. LEADING

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9 PT. TEXT WITH 12 PT. LEADING

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[^6]This Appendix describes a method for establishing a velocity criterion for screening piping systems. Using these procedures, piping systems requiring further analysis can be determined. This Appendix is to be used in conjunction with Part 3, para. 5.1.2.4.

D1. VELOCITY CRITERION
The expression for allowable peak velocity from Part 3, para. 5.1.2.4 is

$$
V_{\text {allow }}=\frac{C_{1} C_{4}}{C_{3} C_{5}} \times \frac{\beta\left(S_{\mathrm{el}}\right)}{\alpha C_{2} K_{2}}
$$

where
$C_{1}=$ correction factor that compensates for the effect of concentrated weights. If concentrated weight is less than 17 times the weight of the span for straight beams, l-bends, u-bends, and z-bends, a conservative value of 0.15 can be used for screening purposes.
$C_{2} K_{2}=$ stress indices as defined in the ASME Code; $C_{2} K_{2} \leq 4$ for most piping systems
$C_{3}=$ correction factor accounting for pipe contents and insulation; for contents and insulation equal to the weight of the pipe, the value would be 1.414 ; in most cases it is less than 1.5
$C_{4}=$ correction factor for end conditions different from fixed ends and for configurations different from straight spans
$=1.33$ for cantilever and simply supported beam

An excerpt from the asme Code for Operation and Maintenance of Nuclear
Power Plants
8 PT. TEXT WITH 10 PT. LEADING
$=0.74$ for equal leg $z$-bend
$=0.83$ for equal leg u -bend
$C_{5}=$ correction factor that is used when measured frequency differs from the first natural frequency of the piping span; for frequency ratios less than 1.0 , the value is 1.0
Sel, $\alpha=$ see Part 3, para. 3.2.1.2
$\beta=$ see Part 3, para. 5.1.2.4

## D2. SCREENING VELOCITY CRITERION

If conservative values of the correction factors are combined, a criterion can be derived that should indicate safe levels of vibration for any type of piping configuration. Using this criterion, piping systems can be checked and those with vibration velocity levels lower than the screening value would require no further analysis. Piping systems that have vibration velocity levels higher than the screening value do not necessarily have excessive stresses, but further analysis is necessary to establish their acceptability.

The following correction factors are considered to be conservative values and should be applicable to most piping configurations; however, the conservatism for extremely complex piping configurations cannot be attested.

$$
\begin{aligned}
C_{1} & =0.15 \\
C_{2} K_{2} & =4 \\
C_{3} & =1.5 \\
C_{4} & =0.7 \\
C_{5} & =1.0 \\
\mathrm{Sel} / a= & 7,690 \mathrm{psi}(53 \mathrm{MPa}) \\
V_{\text {allow }} & =\frac{(0.15)(0.7)(0.00364)(7,690)}{(1.5)(1.0)(4)} \\
V_{\text {allow }} & =0.5 \mathrm{in} . / \mathrm{sec}(12.7 \mathrm{~mm} / \mathrm{s})-\text { screening } \\
& \text { vibration velocity value }
\end{aligned}
$$

## इTOIXEI $\Omega$ N E' <br> OPOI

 катацвтрй то $\mu \varepsilon і$ і̌оv.
 tov हגátтovos.












 $\pi \rho о \varsigma$ то тетартоv.
$\eta^{\prime}$ Ava入oyía $\delta \varepsilon$ हv тpıó̇v ópols $\varepsilon \lambda a x i \sigma \tau \eta ~ \varepsilon \sigma \tau i v$.



 ouoíws, w̧ av $\eta$ ava $\lambda$ oyía utáp $\eta$.

An excerpt from Euclid's Elements, defining concepts of proportion.
10 PT. TEXT WITH 15 PT. LEADING

## ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz

GREEK

## АВГДЕZНӨІКЛМNЕОПРГТХФХЧ $\Omega$ $\alpha \beta \gamma \delta \varepsilon \zeta \eta \theta \iota \kappa \lambda \mu v \xi_{о \pi \rho \varsigma \sigma \tau v \varphi \chi \psi \omega}$  

PROPORTIONAL FIGURES<br>0123456789<br>0123456789

0123456789 0123456789

## LIGATURES

## fiflfb fh

PUNCTUATION AND SYMBOLS

ABCDEFGHIJKLMNOPQRSTUVWXYZÆÐN À ÁÂ Ã Ä Å çè É ÉE Ë İ í 1 Ï İ Đ Ñ Ò Ó Ô õÖ Ø Ù Ú Û ÜÝŸ
 \&/ \|\{\}[]<>()!?\#















 šs ş̣fif
 źżžẑzZ

## ALTERNATE ACCENTED GLYPHS FOR POLISH

ÁćŃŃŚŻááćńóśżá
$+-=\times \div \pm \forall С \partial \exists \nexists \varnothing \Delta \nabla \in \notin \in \ni \nexists \ni$ ■ ПЦ $\ddagger \dot{+}$ $八 * \cdots \sqrt{\sqrt[3]{4}} \propto \infty\left\llcorner\angle \measuredangle<1 \nmid \| \sharp \wedge \vee \cap \cup \iiint \iiint \oint\right.$ $\oiint \oiint f \oint \oint \therefore \because::::-:::: \sim \sim \sim \sim 1+\approx \simeq \neq \cong \not \equiv \neq \approx \not \approx \cong$

 $\supset \not \subset \not \supset \subseteq \supseteq \nsubseteq \nsupseteq \subseteq \supseteq \uplus \cup \uplus\llcorner コ \sqsubseteq \sqsupseteq ா \sqcup \oplus \ominus \otimes \oslash \odot$






SUPERSCRIPTS AND SUBSCRIPTS
ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyza0123456789＋－＝（），

FRACTION NUMBER FORMS

$$
1 / 41 / 2^{3} / 4^{1 / 3} 3^{2 / 3} 1 / 5^{2} / 5^{3} / 5^{4 / 5} 1 / 6^{5 / 61 / 3} 3 / 85 / 8^{7 / 8} 8^{1 /}
$$

## CASE－SENSITIVE FORMS FOR CAPITALS

---《>>>@ii

STYLISTIC ALTERNATES


# ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 

| Proportional figures | Tabular figures |
| :---: | :---: |
| 0123456789 | 0123456789 |
| 0123456789 | 0123456789 |

LIGATURES
fifffb fh fkfofwfxfy tv tw ty

PUNCTUATION AND SYMBOLS




EXTENDED LATIN

















 źżžžzZ

## ALTERNATE ACCENTED GLYPHS FOR POLISH

## ÁćŃóśżáảćńóśż

## MATHEMATICAL OPERATORS

$$
+-=x \div \pm \partial \Delta \prod \sum / \cdot \sqrt{ } \infty \int \approx \neq \leq \geq
$$

SUPERSCRIPTS AND SUBSCRIPTS
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyza0123456789+-=(),

## FRACTION NUMBER FORMS

$$
1 / 4^{1 / 23 / 4} 4^{1 / 3} 3^{2 / 3} 1 / 5^{2 / 5} 3 / 5^{4} / 5^{1 / 65 / 61 / 83 / 85 / 87 / 8^{1 /}}
$$

CASE-SENSITIVE FORMS FOR CAPITALS
—--《>>>@ii

STYLISTIC ALTERNATES
$\$ \$<>\alpha$
words of 4.115.3] HUNGARIAN Egy hütlen vejét fülöncsípő, dühös mexikói úr Wesselényinél mázol Quitóban. An angry Mexican man, who caught his faithless son-in-law, is painting Wesselényi's house in Quito. ICELANDIC Kæmi ný öxi hér vkist biófum nú bæð̀i víl og ádrepa. If a new axe were here, thieves would feel increasing deterrence and punishment. IRISH D'fhuascail Íosa Úrmhac na hÓighe Beannaithe pór Éava agus Ádhaimh D’fuascail Íosa Úrmac na hóige Beannaite pór Éaba agus Ádaim. Jesus, Son of the blessed Virgin, redeemed the seed of Eve and Adam. ITAlian Quel fez sghembo copre davanti. That slanted fez covers the front. Ma la volpe col suo balzo ha raggiunto il quieto Fido. But the fox with his leap has reached the quiet Fido. Quel vituperabile xenofobo zelante assaggia il whisky ed esclama: alleluja! That blameworthy and zealous xenophobe tastes his whisky and says: Alleluja! lithuanian Illinkdama fechtuotojo špaga sublykčiojusi pragręžė apvalų arbūzą. Incurving fencer sword sparkled and perforated a round watermelon. Lojban .o'i mu xagji sofybakni cu zvati le purdi. Watch out, five hungry Soviet-cows are in the garden! mapudungun (Ragileo alphabet) Gvxam mincetu apocikvyeh: ñizol ce mamvj ka raq kuse bafkeh mew. Tale under the full moon: the chief chemamull and the clay old woman at the lake/sea. NORWEGIAN Vår sære Zulu fra badeøya spilte jo whist og quickstep i min taxi. Our strange Zulu from the bathing Island did actually play whist and quickstep in my cab. Høvdingens kjære squaw får litt pizza i Mexico by. The chiefs dear squaw gets a little pizza in Mexico City. IQ-los WC-boms uten horsel skjærer god pizza pà xylofon. IQ-Tess WC-bum without hearing cut good pizza on xylophone. Polish Pójdźże, kiń tę chmurność w głąb flaszy! Come on, drop your sadness into the depth of a bottle! Pchnąć w tę łódź jeża lub ośm skrzyń fig. Push into that boat a hedgehog or eight boxes of figs. Mężny bądź, chroń pułk twój i sześć flag. Be brave, protect your regiment and six flags. portuguese Um pequeno jabuti xereta viu dez cegonhas felizes. A curious little red-footed tortoise saw ten happy storks. Blitz prende ex-vesgo com cheque fajuto. Police arrested ex-cross-eye with fake check in a checkpoint. Gazeta publica hoje no jornal uma breve nota de faxina na quermesse. The journalists publish today at the newspaper a short note about the cleaning at the kirmiss. À noite, vovô Kowalsky vê o ímã cair no pé do pinguiim queixoso e vovó põe açúcar no chá de tâmaras do jabuti feliz. At night, grandpa Kowalsky sees the magnet falling in the complaining penguin's foot and grandma puts sugar in the happy tortoise's date tea. Luís argüia à Júlia que «brações, fé, chá, óxido, pôr, zângão» eram palavras do português. Luís argued to Júlia that "big arms, faith, tea, oxide, to put, bee" were Portuguese words.

## DANIEL RHATIGAN

Submitted in partial fulfilment
of the requirements for the
Master of Arts in Typeface Design,
University of Reading, 2007


[^0]:    A full-size numeral is shown beside a fraction using the numerator and denominator figures, and a superior figure stacked above an inferior letter. These forms are available in both the roman and the italic styles of Gina.

[^1]:    Excerpt from the Wikipedia entry for
    "mathematics"

[^2]:    12 PT. TEXT WITH 16 PT. LEADING

[^3]:    10 PT. TEXT WITH 14 PT. LEADING

[^4]:    8 PT. TEXT WITH 11 PT. LEADING

[^5]:    10 PT. TEXT WITH 14 PT. LEADING

[^6]:    8 PT. TEXT WITH 11 PT. LEADING

