

## Hyphenation patterns for ancient Greek and Latin

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The amount of compound words in ancient Greek makes its hyphenation by computer a quite difficult task; it is impossible to predict all combinations of words. To be efficient, a set of patterns must be accessible to the final user; a scholar must be able to add patterns, according to new words he/she encounters. Use of  $\TeX$ 's `\hyphenation` primitive is not appropriate since most Greek words are declinable: for each word one would have to add a dozen hyphenation exceptions.

After a short introduction to the concept of hyphenation by  $\TeX$  the author presents a method for hyphenation of ancient Greek. Using this method, he compiled a list of patterns out of a dictionary [Bai] of 50,000 words. These patterns are presented in a comprehensible format, in a way that scholars can easily determine the patterns that have to be added, to solve specific hyphenation problems.

The same approach is applied to Latin. A list of patterns has been compiled out of a dictionary [B–C]. The size of this list is very small compared to the one of ancient Greek patterns, although Latin also uses compound words.

Finally examples of hyphenated classical texts are given.

### 1 What do I have to know about hyphenation?

When  $\TeX$  creates a format like `Plain` or `LaTeX` it also reads information from a file called `hyphen.tex` (or `USHyphen.tex`, or `FRHyphen.tex` and so forth) which contains the *hyphenation patterns* for a specific language. These are clusters consisting of letters separated by digits, like `x1y2z`. The idea is the following:

- if your set of patterns is empty, there is no hyphenation at all.
- if you have a pattern `x1y` then on every occurrence of the cluster “xy”, hyphenation “x-y” will be possible. If the pattern is `x1yzw`, then the pair of letters “xy” will be hyphenated only when followed by “zw”.
- if there is a pattern `x1y` and a pattern `x2yabc`, then the pair “xy” will be hyphenated, except when it is followed by “abc”. So the digit 2 indicates an exception to the rule “*separate x and y*”.
- the same holds for greater numbers: 3 will be an exception of patterns with number 2, and so on. You can now read [DEK], pp. 449–451, for more details on  $\TeX$ 's hyphenation algorithm.
- a dot in front of (or behind) a pattern specifies that the latter is valid only at the beginning (or the end)

of a word. In this way, for example, `.xy2z.` will be applied *only* to the word ‘xyz’.

Despite the existence of some fundamental rules, hyphenation of a particular language can be very complicated, especially when it depends on etymological criteria. There are two ways to handle this complexity: one can investigate the hidden mechanisms of hyphenation and make patterns correspond to the analytical steps of manual hyphenation; or one can use a “pattern generator” like `PATGEN` on a sufficiently representative set of already hyphenated words. The choice of the method depends on the nature of the language and on the size of the available set of hyphenated words: theoretically one could create a file containing *all* words of a particular language in hyphenated form; the pattern generator would then give an *exhaustive* set of patterns. Since it is more probable to have partial sets of words, the “pattern generator” will only produce more or less good approximations. For ancient Greek and Latin, the author has chosen the first method.

### 2 Why is hyphenation of ancient Greek so difficult for a computer?

As mentioned in *TUGboat* 11, no. 1, since 1990 patterns have existed for modern Greek (made by the author). What then makes hyphenation of ancient Greek so different? Why is it so difficult?

First of all, because of compound words. The difficulty lies in the fact that components are often altered when composed:  $\epsilon\pi\iota$  and  $\alpha\iota\nu\tilde{\omega}$  gives  $\epsilon\pi\alpha\iota\nu\tilde{\omega}$  (not  $\epsilon\pi\alpha\iota\nu\tilde{\omega}$ ) while  $\epsilon\pi\iota$  composed with  $\beta\acute{\alpha}\lambda\lambda\omega$  produces  $\epsilon\pi\iota\beta\acute{\alpha}\lambda\lambda\omega$ . Could we hence hyphenate always  $\epsilon\pi$ - $\alpha$  and  $\epsilon\pi$ -? well, actually not, because there is also the case of  $\epsilon\pi\iota + \acute{\iota}\alpha\lambda\lambda\omega = \epsilon\pi\acute{\iota}\alpha\lambda\lambda\omega$  which is hyphenated  $\epsilon\pi$ - $\acute{\iota}\alpha\lambda\lambda\omega$ . Then perhaps we could produce patterns for *roots*, like `-αιν`, to insure hyphenation of  $\epsilon\pi$ - $\alpha\iota\nu\tilde{\omega}$ ,  $\kappa\alpha\tau$ - $\alpha\iota\nu\tilde{\epsilon}\sigma\iota\varsigma$ ,  $\psi\epsilon\upsilon\delta$ - $\alpha\iota\nu\tilde{\omega}$  and so forth? No, because this would produce wrong hyphenation of  $\acute{\alpha}$ - $\sigma\theta\mu\alpha\acute{\iota}$ - $\nu\omega$ ,  $\sigma\eta$ - $\mu\alpha\acute{\iota}$ - $\nu\omega$ ,  $\acute{\upsilon}$ - $\phi\alpha\acute{\iota}$ - $\nu\omega$ ...

A second problem is declension and diacritics. While the latter are provided to facilitate comprehension of a word, they rather obstruct the work of the computer. Because for the computer  $\alpha$ ,  $\acute{\alpha}$ ,  $\grave{\alpha}$ ,  $\tilde{\alpha}$ ,  $\hat{\alpha}$ ,  $\check{\alpha}$ , etc., are *distinct* entities. So  $\epsilon\pi\epsilon\acute{\iota}$  and  $\epsilon\pi\epsilon\grave{\iota}$  are to be treated as entirely distinct words. In most languages declension affects only endings of words:  $\text{здание, здания, зданию, здание, зданием, здании}$  and so forth. In Greek, the root of the word remains mostly the same (except in cases such as  $\acute{\omicron}$   $\acute{\alpha}\nu\eta\rho$ ,  $\tau\omicron\tilde{\upsilon}$   $\acute{\alpha}\nu\delta\rho\tilde{\omicron}\varsigma$ ) but the accent migrates:  $\acute{\omicron}$   $\acute{\alpha}\nu\theta\rho\omega\pi\omicron\varsigma$ ,  $\tau\omicron\tilde{\upsilon}$   $\acute{\alpha}\nu\theta\rho\acute{\omega}\pi\omicron\upsilon$ . It follows that when creating patterns, one must consider all possible diacritics and their positions.

To illustrate this, here is an example of two words which look very similar but are hyphenated in two different ways:

ἄψο-ορρος (from ἄψ and ὄρρυμι)  
and

ἄψό-ρροος (or ἄψόρροος, from ἄψ and ῥέω).

We will decline them and try to extract the necessary patterns so that T<sub>E</sub>X can correctly hyphenate them, in all cases<sup>1</sup>:

ὁ	ἄσορρος	ὁ	ἄσόρροος
τοῦ	ἄσόρρου	τοῦ	ἄσορρούου
τῷ	ἄσόρρω	τῷ	ἄσορρόω
τὸν	ἄσορρον	τὸν	ἄσόρροον
ῶ	ἄσορρε	ῶ	ἄσόρροε
οἱ	ἄσορροι	οἱ	ἄσόρροοι
τῶν	ἄσόρρων	τῶν	ἄσορρόων
τοῖς	ἄσόρροις	τοῖς	ἄσορρόοις
τοῦς	ἄσόρροους	τοῦς	ἄσορρόοους
ῶ	ἄσορροι	ῶ	ἄσόρροοι

For the word ἄσορρος it would be enough to introduce patterns ἄσο-ορρ and ἄψ-όρρ. In this case, the word ἄσόρροος would be wrongly hyphenated. To distinguish this word we must include an o at the end of the pattern, and hence introduce the pattern ἄψό-ρρο. This would again change the hyphenation of the genitive case of ἄσορρος, namely ἄσόρρου. For this reason we will rather use the pattern ἄψό-ρροο. This has the advantage of not interfering with the hyphenation of ἄσορρος, but cannot be applied to the vocative case of ἄσόρροος. For this, we need a second pattern ἄψό-ρροε, which is actually the whole word. In the remaining cases of ἄσόρροος, the accent is on the penultimate syllable ρρο. But the word ἄσορρος is never accented on that syllable, so that an unaccented pattern like ἄψο-ρρ would apply *only* to the genitive, dative and plural accusative cases of ἄσόρροος.

Using this method, we found five patterns:

ἄψο-ορρ, ἄψ-όρρ, ἄψό-ρροο, ἄψό-ρροε, ἄψο-ρρ

The reader can verify that with these, all cases of both words are correctly hyphenated.

The example illustrates another fact: when writing down new patterns, one must constantly compare the newly hyphenated words with the ones which produced the previous patterns, so that conflicts can be avoided.

Finally there are some rare cases where identical words have different meanings and different hyphenations: ἄ-νοστος from ἄ and νόστος, ἄν-οστος from ἄν and ὄζω; ἐν-ετός from verb ἐν-ίημι and ἐ-νετός (Venetian).

<sup>1</sup> The reader should excuse the unusual order of cases: nominative, genitive, dative, accusative, vocative. This order is used in education and scholarly literature, in Greece.

### 3 The fundamental rules of ancient Greek hyphenation, and the corresponding patterns

The Chicago Manual of Style ([Chi], 9.130) asserts that: In [ancient] Greek, word division follows rules that are straightforward and fairly easy to apply.

Here are the rules following this quotation in [Chi], and the necessary patterns ( $v_n, n \geq 1$  will be vowels and  $c_n, n \geq 1$  consonants):

1. When a single consonant occurs between two vowels, divide before the consonant:  $v_1-cv_2$ . The necessary patterns will be  $a1\beta$ ,  $a1\gamma$ ,  $a1\delta$ , ...  $\omega1\psi$  where vowels are taken with all possible combinations of accents, spirits, dieresis and subscript iota. These patterns cover also the case of a vowel followed by more than one consonant; this feature will be useful in rule 4.
2. If a consonant is doubled, or if a mute is followed by its corresponding aspirate, divide after the first consonant:  $v_1c_1-c_2v_2$  for  $c_1 = c_2$ , or  $(c_1, c_2) \in \{(\pi, \phi), (\tau, \theta), (\kappa, \chi), (\gamma, \chi)\}$ . The patterns will be  $2\beta1\beta$ ,  $2\gamma1\gamma$  ...  $2\psi1\psi$  for the first part of the rule, and  $2\pi1\phi$ ,  $2\tau1\theta$ ,  $2\kappa1\chi$ ,  $2\gamma1\chi$  for the second. For grammatical reasons, it would be best to exclude  $2\rho1\rho$  (and  $2\acute{\rho}1\acute{\rho}$ ) from these patterns.
3. If the combination of two or more consonants begins with a liquid or a nasal, divide after the liquid or nasal [although not stated in the rule, it follows from the examples given in [Chi] that two consecutive nasals should not be separated]:  $v_1c_1-c_2 \dots c_nv_2$ , for  $c_1 \in \{\lambda, \rho, \mu, \nu\}$  but  $v_1c_1 \dots c_nv_2$  if  $(c_1, c_2) = (\mu, \nu)$ . The required patterns are  $2\lambda1\beta$ ,  $2\lambda1\gamma$  ...  $2\nu1\psi$  (except of course  $2\lambda1\lambda$ ,  $2\rho1\rho$ ,  $2\mu1\mu$ ,  $2\nu1\nu$  which have been taken into account in rule 2), and  $2\mu1\nu$ .
4. The division comes before all other combinations of two or more consonants. We do not need any additional patterns to handle this rule; for example in the word ἄστρον, the cluster ἄσ will be hyphenated because of rule 1, and clusters στ, τρ, ρο will not be hyphenated, because they do not appear in any previous pattern list. Theoretically, a problem could occur in the case of a combination of 3 or more consonants *containing* a cluster mentioned in rules 2 or 3. But this is highly improbable and should be taken as an exception.
5. Compound words are divided into their original parts; within each part the foregoing rules apply. The patterns needed to fulfill this rule will be discussed in next section.

It might be interesting to point out that the rules specified by the *Academy of Athens* in 1939 ([Aca], Ἐγκλισις τόνου καὶ συλλαβισμός) are slightly different

from the ones above. According to this set of rules, compound words are separated, except when an eclipse has occurred: *παρέχω* is hyphenated as if it was a simple word: *πα-ρέ-χω*, instead of *παρ-έχω* as suggested in [Chi]. Following the rules of the Academy of Athens would result in a completely different set of patterns, since the eclipse phenomenon occurs very often.

The patterns we have introduced thus far are not sufficient for fundamental hyphenation. We still must introduce two families of patterns:

- Pairs of vowels are to be separated, except in the case of diphthongs. This leads to patterns *α1α*, *α1ε*, *α1η*, *α1ι* ... *ω1ω* including all diacriticized vowels.
- In Greek, the smallest part of a word remaining on a line is a syllable. This may shock a TeX user, but hyphenations like *ἄ-προσάρμοστος* and *ἐπιδεικνύ-ω* are allowed, and can frequently be found in books. The problem is that by setting `\lefthyphenmin` and `\righthyphenmin` equal to 1, one can eventually separate single consonants, which do not form syllables: *δῶρο-ν* is TeXnically allowed, since `\righthyphenmin=1`, but should be avoided. For this we just have to introduce patterns *2β.*, *2δ.* ... *2ψ.* [or even *6β.*, *6δ.* ... *6ψ.* to be sure that no forthcoming exception will affect them].

What remains now are patterns concerning separation of compound words, according to rule 5. These are described in the following section.

#### 4 Hyphenation of ancient Greek compound words

*No puede combinar unos caracteres dhcmrlchtdj que la divina Biblioteca no haya previsto y que en alguna de sus lenguas secretas no encierren un terrible sentido...*

writes J. L. Borges in the “Biblioteca de Babel”; the situation is similar for ancient (or modern) Greek compound words. By combining words one can easily exceed Mark Twain’s

“Mekkamuselmannenmassenmenchenmordermohrenmuttermarmormonumentenmachen”,

given in [DEK], p. 451. As already pointed out, one could make patterns out of all possible roots, so that any possible combination of them is correctly hyphenated. The problem is, though, that the combinations of letters forming these roots can also occur inside single words, and only by their meaning can one decide if a particular root is present in a word: *πεντήρης* is formed by *πεντ-* and *-ηρ-* (from *ἄρω*). The words *τρήρης*, *μονήρης*, *τειγήρης*, all contain the same root *-ηρ-*. But introducing a pattern  $\text{3}\eta\text{4}\rho\text{3}$  would cause tremendous problems, since thousands of words contain the cluster *ηρ*, hyphenated as *η-ρ*: *τεκμή-ριον*, *στή-ριγμα*, *πη-ρόω* and so

forth. The fact is that such patterns should be avoided, or introduced only after extensive investigation.

The author has chosen a different method. Instead of introducing patterns for roots of words, only *beginnings of words* are taken into account. In this way, when writing for example  $\text{.}\epsilon\text{4}\nu\text{3}$  one can be sure that only words beginning with the prefix *ἐν* will be affected. Exceptions to this rule can easily be found by consulting the dictionary. This method is very effective in hyphenating the most frequent words, but fails when new compound words are to be hyphenated: *ἐπ-αινῶ* and *κατ-αινῶ* will be correctly hyphenated (since patterns *ἐπ-* and *κατ-αι* are included in the list) but not an eventual *κατ-επ-αινῶ*, unless of course the user adds a new pattern *κατ-επ-* to the list in section 5.

Another advantage of this method is the fact that, contrary to most pattern lists, such a list is easily comprehensible, and hence can be completed easily by the final user himself (who does not have to be a TeX-guru). This comes from the fact that — except for the fundamental patterns explained in the previous section — all patterns are beginnings of words. By checking in the list, one can instantly verify why a specific word is hyphenated in a particular way; once this is understood, one can add the necessary pattern(s) to remedy to the situation. This is highly inadvisable for a pattern file created by a “pattern generator”, where a simple change can have very strange and obscure results (until now pattern files always started with the most categorical phrase [NOT TO BE CHANGED IN ANY WAY!]).

To facilitate even more the comprehension of this list of patterns, the author has chosen to present it in a very special format. Here is a sample excerpt of the pattern list which the reader can find in next section:

*αὐτό-σσ(ντος), αὐτο-σσ(ύτου)*  
**ἄφ-, ἄφ-**  
*ἄ-φαλ(ος), ἄ-φάλ(ου)*  
*ἄφ-άλλ(ομαι)*  
*ἄ-φάν(εια), ἄ-φαν(ής)*  
*ἄφ-ανδ(άνω)*

The words *αὐτό-σσ(ντος)* and *αὐτο-σσ(ύτου)* constitute one entry. In both cases, the patterns themselves are given in straight characters: *αὐτό-σσ* and *αὐτο-σσ*. The slanted endings between parentheses are *just possible examples*, which justify the existence of these patterns. It is important that the reader realizes that *these examples are not unique* but just indicative. So only what is written in straight letters will appear as a pattern.

The entry **ἄφ-, ἄφ-** is called a *rule*. Because of its frequency, the author has preferred not to give any example, and to present it “as a general rule”. The symbol introduces exceptions, and exceptions to exceptions. The difference is shown by indentation. In this case, *ἄ-φάλ* is an exception to *ἄφ-*, and *ἄφάλου* (genitive case of

ἄφαλος) is an example of a word starting with this cluster. ἀφ-άλλ is an exception to ἀ-φάλλ, and ἀφάλλομαι a possible example. Same thing for ἀφ-, ἀ-φάν, ἀφ-ανδ.

Let's take a look to the concrete realization of these patterns: since ἀφ- is an exception to the fundamental hyphenation rules, the pattern can for example be .ḁ2φ1; the exception ἀ-φάλλ could be expressed as “if ἀφ is followed by άλ, do not cut between φ and ά, but do cut between ά and φ”. This leads us to the pattern .ḁ3φ2άλλ. The reader can verify that the further exception ἀφ-άλλ requires a pattern like .ḁ4φ3άλλ.

In the next section, the complete list of patterns extracted from [Bai] is presented, in the format explained above.

## 5 Patterns for ancient Greek compound words

ἀγαπ-ήν(ωρ), ἀγαπ-ην(όρων)  
 ἀγελ-άρ(χης), ἀγελ-αρ(χῶν)  
 ἄγρ-υ(πνος), ἄγρ-ύ(πνου)  
 ἄγχ-ώ(μαλος), ἄγχ-ω(μάλων)  
 ἄγων-ά(ρρης), ἄγων-α(ρῶν)  
 αἰχμ-άλλ(ωτος), αἰχμ-αλλ(ώτου)  
 ἄκρ-ών(υχος), ἄκρ-ων(ύχου)  
 ἄκρ-ώρ(εια), ἄκρ-ωρ(είας)  
 ἄλξ-αν(δρος), ἄλξ-άν(δρου), ἄλξ-αν(δρινός)  
 ἄμ-α(ζα), ἄμ-ά(ξης), ἄμ-α(ζῶν)  
 ἄμβλ-ω(πός)  
 ἄμπ-έχ(ω), ἄμφ-έξ(ω)  
 ἄμ-πε-χό(νη)  
 ἄμπ-ί(σχω), ἄμπ-ι(σχέομαι)  
 ἄμφ-αγ(απάζω)  
 ἄμφ-αρ(αβέω)  
 ἄμφ-έπ(ω)  
 ἄμφέρχ(ομαι)  
 ἄμφ-ή(κης), ἄμφ-η(κῶν)  
 ἄμφ-ιάχ(ω)  
 ἄμφ-ιζά(νω)  
 ἄμφισ-β(αινα), ἄμφισ-β(ατέω)  
 ἄμφ-ίστ(ημι), ἄμφ-ιστ(ήσω)  
 ἄμφί-στο(μος), ἄμφι-στό(μου)  
 ἄμφ-ου(δισ), ἄμφ-ού(δεως)  
 ἄμφ-ωτ(ος), ἄμφ-ώτ(ου), ἄμφ-ωτ(ίς)  
 ἄν-αγνο(ς), ἄν-αγνε, ἄν-άγνο(υ), ἄν-άγρω  
 ἄν-αγο(ρεύω)  
 ἄν-άγω, ἄν-αγώ(γιον), ἄν-αγω(γή)  
 ἄν-άδελ(φος), ἄν-αδέλ(φου)  
 ἄν-αεί(ρω)  
 ἄν-αθρέ(ω)  
 ἄνα-θρέψ(ω)  
 ἄν-αι(μος), ἄν-αί(νομαι), ἄν-αἶ(σσω), ἄν-αι(μωτι)  
 ἄν-άκαν(θος), ἄν-ακάν(θου), ἄν-ακαν(θίνου)  
 ἄν-ακέο(μαι), ἄν-ακέε(σαι)  
 ἄν-ακο(ῦμαι)  
 ἄν-ακωχ(ή)  
 ἄν-αλαλ(άζω)  
 ἄν-άλλ(ητος), ἄν-αλλ(ής)  
 ἄν-αλήθ(ης), ἄν-αλήθ(ης)

ἄν-αλί(σκω)  
 ἄν-αλκ(ις), ἄν-άλκ(ιδος), ἄν-αλκ(εία)  
 ἄν-αλλ(οίωτος)  
 ἄν-αλμ(ος), ἄν-άλμ(ου)  
 ἄν-αλό(ω)  
 ἄνα-λόγ(ως)  
 ἄν-αλτ(ος), ἄν-άλτ(ου), ἄν-αλτ(έστερος)  
 ἄν-άλω(τος), ἄν-αλώ(του)  
 ἄν-αμάξ(ευτος), ἄν-αμαξ(εύτου)  
 ἄν-αμάρ(τητος), ἄν-αμαρ(τήτου)  
 ἄν-άμβ(ατος), ἄν-αμβ(άτου)  
 ἄν-αμφ(ίλογος)  
 ἄν-ανδ(ρος), ἄν-άνδ(ρου), ἄν-ανδ(ρία)  
 ἄν-αντ(ίρρητος)  
 ἄν-αντ(α), ἄν-άντ(ης)  
 ἄν-άξι(ος), ἄν-αξί(ου), ἄν-αξι(ότερος)  
 ἄν-απλό(ω)  
 ἄν-αποδε(ικτως)  
 ἄν-απόδρ(αστος), ἄν-αποδρ(άστου)  
 ἄν-άποι(νος), ἄν-αποί(νου)  
 ἄν-απόλα(υστος), ἄν-απολα(ύστου)  
 ἄν-απόσ(τατος), ἄν-αποσ(τάτου)  
 ἄν-άπτ(ω), ἄν-άψ(ω)  
 ἄν-αρ(θρος), ἄν-άρ(θρου), ἄν-αρ(ίθμητος)  
 ἄν-άσκη(τος), ἄν-ασκή(του)  
 ἄν-ατο(ς), ἄν-άτο(υ), ἄν-άτω(ν)  
 ἄνα-τολ(ή)  
 ἄν-αυ(δος), ἄν-αύ(γητος), ἄν-αυ(γήτου)  
 ἄ-ναυς  
 ἄν-αφρόδ(ιτος), ἄν-αφροδ(ίτου)  
 ἄνδρ-άγ(ρια), ἄνδρ-αγ(αθέω)  
 ἄνδρ-αχ(θής)  
 ἄνδρ-εἰκ(ελος), ἄνδρ-εικ(έλου)  
 ἄνδρ-ηλ(άτης)  
**ἄν-ε, ἄν-έ, ἄν-ε**  
 ἄ-νευ  
 ἄ-νέφε(λος), ἄ-νεφέ(λου)  
 ἄ-νεψ(ιά)  
**ἄν-η, ἄν-ή, ἄν-ῆ, ἄν-η**  
 ἄ-νήρ, ἄ-νήρ  
**ἄνθ-**  
 ἄν-θ(ησις)  
 ἄν-θεμ(ον), ἄν-θέμ(ιον), ἄν-θεμ(ίζομαι)  
 ἄν-θέω, ἄν-θέε(ις), ἄν-θέο(μεν)  
 ἄν-θῶ(μεν), ἄν-θεῖ(τε), ἄν-θεῦ(σι)  
 ἄν-θήσ(εως), ἄν-θηρ(ός)  
 ἄν-θί(ζω), ἄν-θι(νός)  
 ἄνθό-(κροκος), ἄνθο-(κρόκου)  
 ἄνθ-ομ(ολογοῦμαι)  
 ἄνθ-οπ(λίζω)  
 ἄνθ-ορ(μέω)  
 ἄνθ-οσ(μία)  
 ἄν-θρ(ακεύς)  
**ἄν-ι, ἄν-ί, ἄν-ι**  
 ἄ-νίκη(τος), ἄ-νική(του)  
 ἄ-νιπτό(πους)  
 ἄ-νιπ(τος), ἄ-νίπτο(υ), ἄ-νίπτω(ν)  
**ἄν-ο, ἄν-ό, ἄν-ο**  
 ἄ-νόη(τος), ἄ-νοή(του)

- ἄ-νομο(ς), ἄ-νόμο(υς), ἄ-νόμω(ν)  
 ἄ-νοο(ς), ἄ-νόο(υ)  
 ἄ-νοσ(ος), ἄ-νόσ(ου)  
 ἄν-όσι(ος), ἄν-οσί(ου)  
 ἄ-νουθ(έτητος)
- ἄντ-ά, ἄντ-α**  
**ἄντ-έ, ἄντ-ε**  
 ἄν-τείν(ω)  
 ἄν-τέλλ(ω)
- ἄντ-ή, ἄντ-η**  
 ἄντ-ισό(ω)  
 ἄντ-ισχ(υρίζομαι)
- ἄντ-ο, ἄντ-υ, ἄντ-ω**  
**ἄν-υ, ἄν-ύ, ἄν-υ**  
 ἄ-νυμφ(ος), ἄ-νύμφ(ευτος), ἄ-νυμφ(εύτου)  
 ἄ-νύω, ἄ-νύο(υν), ἄ-νύε(ις)
- ἄν-ώ, ἄν-ω**  
 ἄνω-φερ(ής)
- ἄπ-ά, ἄπ-α**  
 ἄ-παγή(ς), ἄ-παγή(ς), ἄ-παγο(ῦς), ἄ-παγῶ(ν)  
 ἄ-παγέ(ς), ἄ-παγέ(ς), ἄ-παγε(ῖ), ἄ-παγῆ  
 ἄ-πάθ(εια), ἄ-παθ(είας)  
 ἄπ-αθα(νατίζω)  
 ἄ-πάλα(μνος), ἄ-παλά(μνου)  
 ἄ-πάρ(θενος), ἄ-παρ(θένου)  
 ἄπ-αρί(θμητος), ἄπ-αρι(θμέω)  
 ἄπ-αρκ(έω)  
 ἄπ-αρν(έομαι)  
 ἄπ-αρτ(άω)  
 ἄπ-αρύ(τω)  
 ἄπ-άρχ(ω)  
 ἄ-πάτω(ρ), ἄ-πάτο(ρος)
- ἄπ-έδο(μαι), ἄπ-εδό(μεθα), ἄπ-έδε(ισθε)  
 ἄπ-εθί(ζω)  
 ἄπ-εικ(άζω)  
 ἄπ-είλ(ημα), ἄπ-ειλ(έω)
- ἄπ-ει**  
 ἄ-πειρ(ος)  
 ἄπ-εῖπ(ομεν), ἄπ-εῖ(πον)  
 ἄπ-εῖργ(ω), ἄπ-εῖργ(άθω)  
 ἄπ-έκ(δυνον), ἄπ-εκ(δύνω)  
 ἄπ-έλ(αυνον), ἄπ-ελ(αύνω)  
 ἄ-πέλε(θρος)  
 ἄπ-έμ(εσσα), ἄπ-εμ(έω)  
 ἄπ-έν(επον), ἄπ-εν(έπω)  
 ἄ-πένθ(ητος), ἄ-πενθ(ής)
- ἄπ-έο(ικα)  
 ἄπ-έρασ(ις), ἄπ-εράσ(εως)  
 ἄπ-έργ(ω), ἄπ-εργ(άζομαι)  
 ἄπ-έρδ(ω)  
 ἄπερ-εῖ, ἄπερ-εῖ  
 ἄπ-ερε(ίδω)  
 ἄπ-ερύ(κω), ἄπ-ερυ(θριάω)  
 ἄπ-έρχ(ομαι), ἄπ-ερχ(όμεθα)  
 ἄπ-έρω(τος), ἄπ-ερώ(του), ἄπ-ερω(έω)  
 ἄπ-εσθ(έομαι)  
 ἄπ-ευθ(ύνω)  
 ἄπ-ευν(άζω)  
 ἄπ-εύχ(ομαι), ἄπ-ευχ(όμεθα)
- ἄπ-ευω(νίζω)  
 ἄπ-εφ(θος), ἄπ-έφ(θου), ἄπ-εφ(θέστερος)  
 ἄπ-έχ(θομαι), ἄπ-εχ(θαίρω)  
 ἄπ-ήγ(γελον)  
 ἄπ-ηλ(εγέως)  
 ἄπ-ήω(ρος), ἄπ-ηώ(ρου)  
 ἄπ-ιά(λλω)  
 ἄπ-ιπ(πόω)  
 ἄπ-ισ(όω)  
 ἄ-πιστ(έω)  
 ἄπ-ίστ(ημι)  
 ἄπ-ίσχ(ω), ἄπ-ισχ(υρίζομαι)  
 ἄπ-οικ(ος), ἄπ-οίκ(ου), ἄπ-οικ(έω)  
 ἄπ-οιμ(ώζω)  
 ἄπ-όλλυ(μι), ἄπ-ολλύ(ω)  
 ἄπ-ολοφ(ύρομαι)  
 ἄπ-ομόρ(γνυμι)  
 ἄπ-ονίν(ημι)  
 ἄπ-ονυχ(ίζω)  
 ἄπ-οξύν(ω)  
 ἄπ-οπτ(ος), ἄπ-όπτ(ου)  
 ἄπό-πτολ(ις)
- ἄπ-ορ, ἄπ-όρ, ἄπ-ορ**  
 ἄ-πόρθ(ητος), ἄ-πορθ(ήτου)  
 ἄπό-ρρ(ευσις), ἄπό-ῤ(ῤευσις), ἄπο-ρρ(αθυμέω),  
 ἄπο-ῤ(ῤαθυμέω)  
 ἄ-πόρφυ(ρος), ἄ-πορφύ(ρου)  
 ἄπ-οσιό(ομαι), ἄπ-οσιο(ῦμαι)
- ἄπ-ου, ἄπ-οῦ, ἄπ-ου**  
 ἄ-πους, ἄ-που  
 ἄπ-οχετ(εύω)  
 ἄπ-οχυρ(όω)  
 ἄπ-οψι(ς), ἄπ-όψε(ως)  
 ἄπ-φ(δέω)  
 ἄργυρ-ώ(νητος), ἄργυρ-ω(νήτου)  
 ἄρμ-άμ(αζα), ἄρμ-αμ(άξης)  
 ἄρχ-ηγέτ(ης), ἄρχ-ηγετ(ῶν)  
 ἄρχ-ηγό(ς), ἄρχ-ηγό(ς), ἄρχ-ηγῶ(ν)  
 ἄρχ-ηγέ, ἄρχ-ηγέ, ἄρχ-ηγῶ(ν)  
 ἄρχ-ιε(ρεῦς)  
 ἄ-στεργ-άν(ωρ), ἄ-στεργ-αν(όρων)
- αὐθ-**  
 αὐθι-(γενής)
- αὐτ-, αὐτ-**  
 αὐτί-κα  
 αὐτό-(βουλος), αὐτο-(βοεῖ)  
 αὐτ-όπτ(ης)  
 αὐτ-όρο(φος), αὐτ-ορό(φου)  
 αὐτό-σσ(υτος), αὐτο-σσ(ύτου)
- ἄφ-, ἄφ-**  
 ἄ-φαλ(ος), ἄ-φάλ(ου)  
 ἄφ-άλλ(ομαι)  
 ἄ-φάν(εια), ἄ-φαν(ής)  
 ἄφ-ανδ(άνω)  
 ἄ-φαρ, ἄ-φάρ(μακτος), ἄ-φαρ(μάκτου)  
 ἄφ-αρπ(άζω)  
 ἄ-φατ(ος), ἄ-φάτ(ου)  
 ἄ-φε(ρτος), ἄ-φέ(ρτου), ἄ-φε(γγής)  
 ἄφ-εῖ(ργω)

ἀφ-έλ(κω)	ἐπ-ιάχ(ω)
ἄ-φθ(ιτος), ἄ-φθ(ίτου)	ἐπ-ίη(μι)
ἄ-φίλ(ως), ἄ-φιλ(όκαλος)	ἐπ-ιθύν(ω)
ἄ-φλ(οιος), ἄ-φλ(έγμαντος)	ἐπ-ιλλ(ίζω)
ἄ-φοβ(ος), ἄ-φόβ(ητος), ἄ-φοβ(ήτου)	ἐπ-ίσταμ(αι), ἐπ-ίστασ(αι), ἐπ-ίστατ(αι)
ἄ-φόρ(ητος), ἄ-φορ(ήτου)	ἐπ-ιστάμ(εθα), ἐπ-ίσταν(ται)
ἄ-φορο(ς), ἄ-φόρο(ν), ἄ-φόρω(ν)	ἐπ-ιστι(ος), ἐπ-ιστί(ου)
ἄ-φρ(ουρος), ἄ-φρ(άσμων)	ἐπ-ιωγ(ή)
ἄ-φυ(κτος), ἄ-φύ(λακτος), ἄ-φυ(ής)	ἐρμ-αφ(ρόδιτος)
ἄφ-υβ(ρίζω)	ἐρ-ράπ(τω)
ἄφ-υπ(νίζω)	ἐρ-ρυθ(μος), ἐρ-ρύθ(μου)
ἄψ-ορρ(ος), ἄψ-ορῆ(ρός), ἄψ-όρρ(ου), ἄψ-όρῆ(ρού)	ἐρυσ-άρ(ματος), ἐρυσ-αρ(μάτου)
ἄψό-ρροο(ς), ἄψό-ρροε, ἄψο-ρρό(ου)	<b>ἔσ-</b>
ἄψό-ρῆοο(ς), ἄψό-ρῆοε, ἄψο-ρῆό(ου)	ἔτερ-α(λκής)
βαλαν-ά(γρα), βαλαν-α(γρῶν)	ἔτερ-ή(μερος)
βαλλ-α(χράδαι)	ἔτερ-όφθ(άλμος), ἔτερ-οφθ(άλμου)
βητ-ά(ρμων), βητ-α(ρμώνων)	<b>ἔφ-, ἐφ-</b>
βλοσυρ-ώ(πιδος), βλοσυρ-ῶ(πις), βλοσυρ-ω(πίδων)	ζευγ-η(λάτης)
βοιωτ-ά(ρρης), βοιωτ-α(ρρία)	ἦν-οψ, ἦν-οπ(ος)
βόσ-π(ορος), βόσ-π(όρου)	θέσ-φ(ατος), θεσ-φ(άτου)
βούλ-α(ρχος), βουλ-ά(ρχου)	θιασ-ά(ρρης)
γαμψ-(ῶνυξ)	θυμ-α(λγής)
γεροντ-αγ(ωγέω)	θυμ-η(δής)
γιγαντ-ολ(έτης)	θυοσ-κό(ος)
γλαυκ-ώπ(ιδος), γλαυκ-ῶπ(ις), γλαυκ-ωπ(ός)	θυρ-επ(ανοίκτης)
γονυκαμψ-επ(ίκυρτος)	ἱερ-ών(υμος), ἱερ-ων(ύμου)
γονυκαλυσ-ά(γρυπνα)	ἱμαντ-ελ(ίκτης)
γοργ-ώ(πιδος), γοργ-ῶ(πις), γοργ-ω(πός)	ἱπ-αγ(ρέτης)
δεισ-ή(νωρ), δεισ-η(νόρων)	ἱπ-αλ(εκτρύων)
δευτερ-αγ(ωνιστής)	ἱπ-αρ(χος), ἱπ-άρ(ρης), ἱπ-αρ(μοστής)
δεχ-ή(μερος), δεχ-η(μέρου)	ἱπ-ερ(αστής)
δημ-αγ(ωγός)	ἱπ-ήλ(ατος), ἱπ-ηλ(άτης)
δήμ-αρ(χος), δημ-άρ(χου), δημ-αρ(χικός)	ἱπ-ημ(ολγός)
δημ-ωφ(ελής)	ἱπ-ου(ρις), ἱπ-ού(ριδος)
δισ-θ(ανής)	ἰσ-ά(νεμος), ἰσ-α(νέμου)
δισσ-ά(ρραι), δισσ-α(ρρῶν)	ἰσ-ή(λικος), ἰσ-ῆ(λιξ), ἰσ-η(μερία)
δισ-ύπ(ατος), δισ-υπ(άτου)	ἰσ-όνε(ιρος), ἰσ-ονε(ίρου)
δισ-χ(ίλιοι)	ἰσχ-αι(μος), ἰσχ-αί(μου)
δουρ-η(νεκής)	<b>καθ-</b>
<b>δύσ-, δυσ-</b>	κακ-άγ(γελος), κακ-αγ(γέλου)
δύ-σις, δύ-σε(ως), δύ-σιν	κακ-αν(δρία)
δωδεκάδ-αρ(χος), δωδεκαδ-άρ(χου)	καρ-ρέ(ζουσα), καρ-ρε(ζούσης)
δωδέκ-αρ(χος), δωδεκ-άρ(χου), δωδεκ-έ(της)	κατ-αγγ(έλω)
εἰκόσ-ο(ρος), εἰκοσ-ό(ρου)	κατ-αγί(ζω), κατ-αγι(νέω)
εἰλ-άρ(ρης), εἰλ-αρ(χῶν)	κατ-άγν(υμι), κατ-αγν(ύω)
<b>εἴσ-, εἰσ-</b>	κατα-γνυπ(όω)
εἴ-σω	κατ-αγο(ρεύω)
ἐκ-εχ(ειρία)	κατ-άγω, κατ-άγε(ις), κατ-άγο(μεν)
ἐλικ-ω(ψ), ἐλικ-ώ(πιδος), ἐλικ-ῶ(πις), ἐλικ-ω(πίδω)	κατ-αγω(γή)
<b>ἐν-, ἐν-</b>	κατ-ά(δω)
ἐντεῦθ(εν), ἐντευθ(εν)	κατ-αθυμ(έω)
ἐνταῦθ(α), ἐνταυθ(οῖ)	κατα-θυμί(ου)
<b>ἐξ-</b>	<b>κατ-αι</b>
<b>ἐπ-, ἐπ-</b>	κατ-ακον(τίζω)
ἔ-παθο(ν), ἔ-παθα(ς), ἔ-παθε(ς)	κατ-ακού(ω)
ἐ-πάθο(μεν), ἐπάθα(τε)	κατ-άκρας
<b>ἐπι-, ἐπί-, ἐπι-</b>	κατ-αλείφ(ω)
ἐπ-ιάλλ(ω)	κατ-αλέω, κατ-αλέε(ις), κατ-αλέο(μεν)
ἐπ-ιαύ(ω)	κατ-αλλ(άσσω)

κατ-αλοά(ω)  
κατ-αμά(ομαι), κατ-αμώ(μεθα), κατ-αμῶ(μαι),  
κατ-αμε(ῖσαι)  
κατ-αμελ(έω)  
κατ-αμπ(έχω)  
κατ-αμύν(ομαι), κατ-αμυν(όμεθα)  
κατ-αμύσ(σω), κατ-αμυσ(σόμεθα)  
κατ-αμύτ(τω), κατ-αμυτ(τόμεθα)  
κατ-αναλ(ίσκω)  
κατ-ανασκ(ύλλω)  
κατ-ανθ(ρακόω)  
**κατ-άν, κατ-αν**  
κατα-νω(τίζομαι)  
κατ-άξι(ος), κατ-αξί(ου)  
κατ-απειλ(έω)  
κατ-άπτομ(αι)  
**κατ-άρ, κατ-αρ**  
κατα-ρυγ(ηλόω)  
**κατά-ρρ, κατα-ρρ**  
κατ-ασβ(έννυμι)  
κατ-ασθ(μαίνω)  
κατ-ασκέ(ω), κατ-ασκῶ, κατ-ασκεῖ(ς), κατ-ασκο(ῶν)  
κατ-ασπάζ(ομαι)  
κατ-αστερ(ίζω)  
**κατ-αυ**  
κατ-εγγ(νάω)  
κατ-έδ(ω)  
κατέ-δρ(αθον)  
κατ-εί(βω), κατ-ει(κάζω)  
κατ-εῖ(πα)  
κα-τεῖδ(ον), κα-τεῖναι  
κατ-ελ(άνω)  
κατ-εμ(έω)  
κατ-εν(αίρω)  
κατ-εξ(ανίσταμαι)  
κατ-επ(αγγέλλομαι)  
κατ-ερ(γάζομαι)  
κατ-εσ(θίω)  
κατ-ευ(ημερεύω)  
κατ-εφ(άλλομαι)  
κατ-έχ(ω)  
**κατ-ή, κατ-η**  
**κατ-ί, κατ-ι**  
**κάτ-ο, κατ-ό, κατ-ο**  
**κατ-ύ, κατ-υ**  
κατ-ωμ(άδιος)  
κατ-ωχ(ριάω)  
καχ-ε(ξία)  
κεν-α(γής)  
κεντρ-ην(εκής)  
κέρκ-ου(ρος)  
κερ-οί(αξ), κερ-οι(άκων)  
κεφαλ-αλ(γός)  
κεφαλ-ηγ(ερέτης)  
κλασ-αυ(χενεύομαι)  
κοιλ-ωπ(ός)  
κορυθ-ά(ῖξ), κορυθ-α(ῖκων)  
κυαν-ώ(πιδος), κυαν-ῶ(πις)  
κύκλ-ωψ, κύκλ-ωπ(ος), κυκλ-ώπ(ων)

κυν-αλ(ώπηξ)  
κυν-όδ(ους), κυν-οδ(όντων)  
κυν-ώπ(ης), κυν-ῶπ(ις), κυν-ωπ(ίδων)  
κωλ-α(κρέτης)  
κωμ-άρ(χης), κωμ-αρ(χίου)  
κωμ-φ(δός)  
κωμ-ηλ(άτης)  
κωπ-ήρ(ης)  
λαβρ-α(γόρης)  
λευκ-ανθ(ής)  
λευκ-ασ(πις), λευκ-άσ(πιδος), λευκ-ασ(πιδων)  
λευκ-ή(ρετμος), λευκ-η(ρέτμου)  
λεύκ-ι(ππος), λευκ-ί(ππου)  
λευκ-ώ(λενος), λευκ-ω(λένου)  
λευχ-ε(ιμονέω)  
λοχ-αγ(ός)  
λυκ-αυ(γής)  
λυκ-ου(ρία)  
λύσ-αν(δρος), λυσ-άν(δρου)  
μακρ-αί(ων), μακρ-αι(ώνων)  
μακρ-η(γορέω)  
μεγάλ-α(υχος), μεγαλ-ά(δικος), μεγαλ-α(δίκου)  
μεγαλ-ή(τωρ), μεγαλ-η(γόρος)  
μεγαλ-ώ(νυμος), μεγαλ-ω(νύμου)  
μεγ-αυ(χής)  
**μέθ-, μεθ-**  
μέ-θυ, με-θύ(ω), με-θυ(μναῖος)  
μεθ-ύστ(ερος), μεθ-υστ(έρου)  
μελάν-α(ιγίς), μελαν-α(ίγιδος)  
μελαν-ε(ίμων)  
μελαν-ύ(δρος)  
μελ-φ(δός)  
μεσ-άγ(κυλον), μεσ-αγ(κύλου)  
μέσ-ακ(τος), μεσ-άκ(του)  
μέσ-αυ(λος), μεσ-αύ(λου)  
μεσ-εγ(γνάω)  
μεσ-ημ(βρία)  
μεσ-ή(ρης), μεσ-ῆ(ρες)  
μεσ-ιδ(ιος), μεσ-ιδ(ίου)  
μεσό-δμ(η), μεσο-δμ(ών)  
μέσσο-αυ(λος), μεσσο-αύ(λου)  
μεσσο-ή(ρης), μεσσο-ῆ(ρες)  
μετ-άγγ(ελος), μετ-αγγ(έλου)  
μετ-άγω, μετ-άγε(ις), μετ-άγο(μεν)  
μετ-αί(ρω), μετ-αῖ(σσω), μετ-αι(τέω)  
μετ-αλλά(σσω)  
μετ-αμπ(έχω)  
μετ-αμύ(νω)  
μετ-αμφ(ιάζω)  
μετ-αμώ(νιος), μετ-αμω(νίου)  
μετ-ανίστ(ημι)  
μετ-αῦ(θις), μετ-αυ(δάω)  
**μέτ-ε, μετ-έ, μετ-ε**  
μετ-ί(στημι)  
**μέτ-ο, μετ-ό, μετ-ο**  
**μέτ-ω, μετ-ώ, μετ-ω**  
μηδ-α(μά)  
μηδ-έτ(ερος), μηδ-ετ(έρου)  
μηθ-(εῖς)

μήλ-ωψ, μήλ-οπ(ος), μήλ-όπ(ων)	ὄμ-ώρ(οφος), ὄμ-ωρ(όφιος)
μητρ-α(γύρτης)	ὄν-ηλ(άτης)
μικρ-α(δικητής)	ὄξ-άλ(μη)
μιμ-φ(δός)	ὄπωσ-οῦν, ὄπωσ-τι(οῦν)
μιξ-α(ρχαγέτας)	ὄρκ-ωμό(σιον), ὄρκ-ωμο(σίον)
μισ-ά(δελφος), μισ-α(δέλφου)	ὄσ-ημ(έραι)
μισγ-ά(γγεια), μισγ-α(γγείας)	ὄσ-τε
μισ-έλ(λην), μισ-ελ(λήνων)	ὄσ-τις
μογισ-αψ-ε(δάφα)	ὄτ-αν
μοιχ-άγ(ρια), μοιχ-αγ(ρίας)	οὐδ-οπωσ-τι(οῦν), οὐδ-οσ(τισοῦν)
μον-άμ(πυξ), μον-αμ(πύκων)	οὐθ-αμ(ῶς)
μόν-αρ(χος), μον-άρ(χου), μον-αρ(χικός)	οὐκ-(οὐν), οὐκ-(οῦν)
μον-αυ(λέω)	οὐ-κω(ν)
μον-ήμ(ερος), μον-ημ(έρου)	ὄψ-ώ(νιον), ὄψ-ω(νίου)
μον-ήρ(ης), μον-ῆρ(ες)	παιδ-ολ(έτειρα)
μόν-ιπ(πος), μον-ίπ(που)	παλαί-χθ(ων), παλαι-χθ(ώνων)
μον-όδ(ους), μον-οδ(όντων)	<b>παλίν-, παλιν-</b>
μον-φ(δέω)	παλ-ίω(ζις), παλ-ιώ(ξεως)
μον-ώψ, μον-ῶψ, μον-ῶπ(ος), μον-ώπ(ων)	<b>πάν-, παν-</b>
μυθ-ίαμ(βος), μυθ-ιάμ(βου)	πα-νός, πα-νός, πα-νί, πα-νί, πά-να
μυρ-αλ(οιφία)	πά-νυ
μυρ-ε(ψός)	παρ-άγ(ω), παρ-αγ(γέλλω)
μυστ-αγ(ωγέω)	παρ-αγε(ύω)
νεκρ-άγ(γελτος), νεκρ-αγ(γέλτου)	παρ-αγη(ράω)
νεφελ-ηγ(ερέτης)	παρ-αγί(γνομαι), παρ-αγι(γνόμεθα)
νεκρ-ακ(αδημία)	παρά-γρ(αμμα), παρ-αγρ(αφή)
νουν-εχ(όντως)	παρ-αγυ(μνόω)
νυκτ-εγ(ερτέω)	παρ-αε(ίδω)
νυκτ-ηγ(ορέω)	παρ-αί(σιος), παρ-αῖ(σσω), παρ-αι(νέω),
νυκτ-ηρ(εφής)	παρ-αῖ(σσόμεθα)
νυκτ-ού(ρων), νυκτ-οῦ(ρος)	παρ-ακμ(άζω)
ξεν-αγ(ωγός)	παρ-ακολ(ουθέω)
ξεν-απ(άτης)	παρ-ακον(άω)
ξεν-ηλ(ατέω)	παρ-άκο(υσμα), παρ-ακο(ύω)
ὄδ-η(γός)	πάρ-αλ(ος), παρ-άλ(ου), παρ-αλ(ία)
ὄθ-οῦ(νεκα), ὄθ-οῦ(νεκα)	παρ-αλά(μπω), παρ-αλα(μβάνω)
οἰκ-ουρ(ός)	παρ-αλέγ(ω)
οἰκ-ωφ(ελία)	παρά-λει(ψις), παρ-αλεί(πω), παρ-αλει(πτέον)
οἶν-άνθ(η), οἶν-ανθ(ῶν)	παρ-αλείφ(ω)
οἶν-ερ(αστής)	παρά-λιμ(νος), παρ-αλίμ(νου)
οἶν-οψ, οἶν-οπ(ος), οἶν-όπ(ων)	παρά-λογ(ος), παρ-αλόγ(ου), παρ-αλογ(ίζομαι)
οἶον-εἰ, οἶον-εἰ	παρά-λυ(σις), παρ-αλύ(σεως), παρ-αλυ(πέω)
οἰός-περ, οἰός-τε	παρ-αμα(ρτάνω)
ὄκτακισ-(χίλιοι)	παρ-αμβ(λύνω)
ὄκτ-ῆρ(ης), ὄκτ-ῆρ(ες)	παρ-αμε(ίβω)
ὄκτωκαιδεκ-έ(της)	παρ-αμέν(ω)
ὄλιγ-αν(δρία)	παρ-αμετ(ρέω)
ὄλιγ-άρ(χης), ὄλιγ-αρ(ιστία)	παρ-αμπ(έχω)
ὄλιγ-ότε(ρος), ὄλιγ-οτέ(ρου)	παρ-ανα(γιγνώσκω)
ὄλιγ-ωρ(ος), ὄλιγ-ώρ(ου)	παρ-αναι(ετάω)
ὄμ-αι(μος), ὄμ-αί(μου)	παρ-ανί(ημι), παρ-ανι(σχόμεθα)
ὄμ-άλ(ικος), ὄμ-ἄλ(ιξ)	παρ-ανικ(άω)
ὄμ-αυ(λος), ὄμ-αύ(λου)	παρ-ανοίγ(ω)
ὄμ-ευ(νος), ὄμ-εύ(νου), ὄμ-ευ(νέτης)	πάρ-αντα
ὄμ-η(ρος), ὄμ-ή(ρου), ὄμ-η(γερός)	παρ-άο(ρος), παρ-αό(ρου)
ὄμ-ι(λος), ὄμ-ί(λου), ὄμ-ι(λία)	παρ-απατ(άω)
ὄμ-ο(ρος), ὄμ-όρ(ου), ὄμ-ορ(όφιος)	παρ-απαφ(ίσκω)
ὄμ-ουρ(ος), ὄμ-ούρ(ου)	παρ-άπτ(ω)
ὄμ-ών(υμος), ὄμ-ων(ύμου)	παρ-άρ(θρησις), παρ-αρ(θρήσεως)

παρά-ρρ(υμα), παρα-ρρ(ύματος)  
 πάρ-αυ(λος), παρ-αύ(λου), παρ-αυ(δάω)  
 πάρ-ε(δρος), παρ-έ(δρου), παρ-ε(γγράπτου)  
 πα-ρέω, πα-ρέε(ις)  
 πάρ-η(μαι), παρ-ή(γορος), παρ-ή(λιξ), παρ-η(βάω)  
 πάρ-ι(σος), παρ-ί(σου), παρ-ι(ππεύω)  
 πάρ-ο(δος), παρ-ό(δου), παρ-ο(δεύω)  
 πά-ρος  
 πα-ρόν(τος)  
 παρ-ρη(σία)  
 παρ-ύ(φαινον), παρ-υ(φαίνω)  
 πάρ-ω(χρος), παρ-ώ(χρου), παρ-ω(νυμία)  
 πα-ρών, πα-ρόν  
 πατρ-άγ(αθος), πατρ-αγ(αθία)  
 πατρ-αλ(οίας)  
 πατρ-ωνύ(μος), πατρ-ωνυ(μίου)  
 παυσ-άνε(μος), παυσ-ανέ(μον)  
 πεδ-αί(χιμος), πεδ-αι(χιμίου)  
 πεδ-άο(ρος), πεδ-αό(ρου)  
 πεδ-άρ(σιος), πεδ-αρ(σίου)  
 πέζ-αρ(χος), πεζ-άρ(χου)  
 πεζ-έτ(αιρος), πεζ-ετ(αίρου)  
 πειθ-ά(νωρ), πειθ-α(νήγκη)  
 πειθ-ή(νιος), πειθ-η(νίου)  
 πέλ-οψ, πελ-όπ(ειος), πελ-οπ(όννησος)  
 πεμπάδ-α(ρχος), πεμπαδ-ά(ρχου)  
 πεμπ-ώ(βολον), πεμπ-ω(βόλου)  
 πενθ-ήμε(ρος), πενθ-ημέ(ρου), πενθ-ημε(ρία)  
 πενθ-ημι(ποδιαίως)  
 πέντ-αθ(λον), πεντ-άθ(λου)  
 πεντ-ήρ(ης), πεντ-ήρ(ες)  
 πλεον-έ(κτημα), πλεον-ε(κτέω)  
 πληξ-ιπ(πος), πληξ-ιπ(που)  
 πλησ-ίσ(τιος), πλησ-ισ(τίου)  
 πλουθ-υ(γίεια)  
 πλούτ-αρ(χος), πλουτ-άρ(χου)  
 ποδ-αβ(ρός)  
 ποδ-άγ(ρα), ποδ-αγ(ρώ)  
 ποδ-έν(δυτος), ποδ-εν(δύτου)  
 ποδ-ήρ(ης), ποδ-ήρ(ες), ποδ-ηγ(ός)  
 ποιμ-ά(νωρ), ποιμ-α(νώρων)  
 ποσσ-ή(μαρος), ποσσ-ή(μαρ), ποσσ-η(μάρων)  
**πρός-, προσ-**  
 προ-σταυ(ρόω)  
 προ-στέλλ(ω)  
 προ-στέν(ω), προ-στέν(άζω)  
 πρό-στερν(ος), προ-στέρν(ου), προ-στερν(ίδιον)  
 πρό-στω(ον), προ-στώ(ου), προ-στώ(ον)  
 προ-συ(γγίνομαι)  
 προσ-υπ(ερβάλλω)  
 πρό-σφαγ(μα), προ-σφάγ(ματος)  
 πρωθ-ή(βη)  
 πρωτ-αγ(ωνιστής)  
 πυγ-άρ(γος)  
 πυθ-αγ(όρας)  
 πυλ-αγ(όρος)  
 πυλ-άρ(της), πυλ-αρ(τῶν)  
 πυλ-ωρ(ός)  
 πυρ-άγ(ρα), πυρ-αγ(ρῶν)

πυρ-ακ(τέω)  
 ραψ-ω(δός)  
 ρίζ-ωρ(υχέω)  
 ρίψ-ασ(πις), ρίψ-άσ(πιδος)  
 ρίψ-οπ(λος), ρίψ-όπ(λου)  
 σιτ-αγ(ωγός)  
 σκληρ-α(γωγέω)  
 σκυθρ-ωπ(ός)  
 σπεύσ-ιπ(πος), σπευσ-ίπ(που)  
 σπονδ-αρ(χία)  
 στέγ-αρ(χος), στεγ-άρ(χου)  
 στεροπ-ηγ(ερέτης)  
 στρατ-ηγ(ός)  
 στρατ-ηλ(άτης)  
**σύν-, συν-**  
 σωμ-ασ(κέω)  
 τέθρ-ιπ(πος), τεθρ-ίπ(που), τεθρ-ιπ(ποβάτης)  
 τειχ-ή(ρής), τειχ-ή(ρες)  
 τεκν-ολ(έπειρα)  
 τερψί-μ(βροτος), τερψι-μ(βρότου)  
 τεσσαρες-(καίδεκα), τεσσερες-(καίδεκα)  
 τετρ-άρχ(ης), τετρ-αρχ(ών)  
 τετρ-ήρ(ης), τετρ-ήρ(ες)  
 τετρ-ώρο(φος), τετρ-ωρό(φου)  
 τηλ-ουρ(ός)  
 τηλ-ωπ(ός)  
 την-άλ(λως)  
 τιμ-αλφ(ής)  
 τοιχ-ωρ(ύχος)  
 τόξ-αρ(χος), τοξ-άρ(χου)  
 τοξ-ή(ρής), τοξ-ή(ρες)  
 τραγ-έλ(αφος), τραγ-ελ(άφου)  
 τραγ-ω(δός)  
 τραπ-έμπ(αλιν)  
 τρεις-καί(δεκα)  
 τρισ-άθ(λιος), τρισ-αθ(λίου)  
 τρισ-άρ(ιθμος), τρισ-αρ(ίθμου)  
 τρισ-άσ(μενος), τρισ-ασ(μένου)  
 τρισ-έ(ωλος), τρισ-ε(υδαίμων)  
 τρισ-μα(κάριος)  
 τρισ-μύ(ριοι), τρισ-μυ(ρίων)  
 τρισ-χ(ίλιοι)  
 τροχ-ήλ(ατος), τροχ-ηλ(άτης)  
 τυνβ-α(ύλης), τυμβ-ή(ρής), τυμβ-ή(ρες), τυμβ-ω(ρύχος)  
 ύμν-ω(δία)  
 ύπ-α(ιθρος), ύπ-ά(γω), ύπ-α(γορεύω)  
 ύ-παιθα, ύ-παί, ύ-παί  
 ύ-παρ  
 ύπ-ε(ιμι), ύπ-έ(γγυος), ύπ-ε(γείρω)  
 ύ-πέιρ, ύ-πέιρ  
**ύπερ-, ύπέρ-, ύπερ-**  
 ύπ-ερεθ(ίζω)  
 ύπ-ερεί(δω)  
 ύπερή-φα(νος), ύπερη-φά(νου), ύπερη-φα(νία)  
 ύπ-έρυθ(ρος), ύπ-ερύθ(ρου), ύπ-ερυθ(ριῶ)  
 ύπ-έρχ(ομαι), ύπ-ερχ(όμην)  
 ύπ-ημ(ύω)  
 ύπ-ήν(εμος), ύπ-ην(έμιος)  
 ύπ-ηο(ϊός)

ύπ-ηρ(έτης)  
 ύπ-ηχ(έω)  
 ύπ-ί(ημι), ύπ-ι(σχνέω)  
 ύπ-οι(δέω)  
 ύπ-ού(λως), ύπ-ου(δαίω)  
     ύπούρ-γ(ημα), ύπουρ-γ(έω)  
 ύπ-ώπ(ιον), ύπ-ωπ(ίου)  
 ύπ-ώρ(εα), ύπ-ωρ(όφιος)  
**ύφ-, ύφ-**  
     ύ-φορβ(ός)  
 ύψ-α(γώρας)  
 ύψ-ε(ρεφής)  
 ύψ-η(γόρος)  
 ύψ-όρ(οφος), ύψ-ορ(όφου)  
 φερ-έγ(γυος), φερ-εγ(γύου)  
 φερ-ώνυ(μος), φερ-ωνύ(μου)  
 φθιν-όπ(ωρον), φθιν-οπ(ώρου)  
 φθισ-ή(νωρ), φθισ-η(νάρων)  
**φίλ-, φίλ-**  
     φι-λέω, φι-λῶ(μεν), φιλέε(ις), φιλεῖ(ς),  
     φι-λέο(μεν)  
 φί-λι(ος), φί-λί(α), φί-λι(κός)  
     φιλ-ιατ(ρέω)  
     φίλ-ιππ(ος), φιλ-ίππ(ου), φιλ-ιππ(ικός)  
 φρεν-ήρ(ης), φρεν-ήρ(ες)  
 φρούρ-αρ(χος), φρουρ-άρ(χου)  
 φυγ-αίχ(μης)  
 φύλ-αρ(χος), φυλ-άρ(χου)  
 φύλ-οπ(ις), φυλ-όπ(ιδος), φυλ-οπ(ιδων)  
 φωτ-αγ(ωγός)  
 χαλ-αργ(ός)  
 χαλιν-αγ(ωγέω)  
 χάλκ-ασ(πικς), χάλκ-άσ(πιδος), χάλκ-ασ(πίδων)  
 χάλκ-έμ(βολος), χάλκ-εμ(βόλου)  
 χάλκ-ήλ(ατος), χάλκ-ηλ(άτου)  
 χάλκ-ήρ(ης), χάλκ-ήρ(ες)  
 χαμ-εύ(νιον), χαμ-ευ(νίου)  
 χειρ-αγ(ωγός)  
 χειρ-απ(τάζω)  
 χειρ-αψ(ία)  
 χεν-όσ(ιρις)  
 χην-αλ(ώπηξ)  
 χορ-α(γός)  
 χορ-η(γός)  
 χρυσ-α(ίετος), χρυσ-ά(μπυξ)  
 χρυσ-ελ(εφαντήλεκτρος)  
 χρυσ-έν(δετος), χρυσ-εν(δέτου)  
 χρυσ-ερ(αστής)  
 χρυσ-ήλ(ατος), χρυσ-ηλ(άκατος)  
 χρυσ-ήρ(ες)  
 χρυσ-όρο(φος), χρυσ-ορό(φου)  
 χρυσ-ων(έω)  
 χρυσ-ώπ(ιδος), χρυσ-ῶπ(ις), χρυσ-ωπ(ιδων)  
 χρυσ-ωρ(υχέω)  
 ψευδ-ά(ττικος), ψευδ-α(λέξανδρος)  
 ψευδ-εν(έδρα)  
 ψευδ-επ(ίγραφος)  
 ψευδ-ηγ(ορέω)  
 ψευδ-ηρ(ακλής)

ψευδ-όρ(κιος), ψευδ-ορ(κίου)  
 ψυχρ-ήλ(ατος), ψυχρ-ηλ(άτου)  
 ὤμ-ησ(τής)  
 ὠσ-αν-εί, ὠσ-αν-ει  
 ὠσ-αύτωσ  
 ὠσ-εί, ὠσ-ει  
 ὠσπερ-εί, ὠσπερ-ει

## 6 The fundamental rules of Latin hyphenation, and the corresponding patterns

Taken from [Chi] (9.56–9.59), here are the rules of Latin hyphenation and the necessary patterns ( $v_n, n \geq 1$  will be vowels, including  $\text{y}$  and  $\text{y}$ , and  $c_n, n \geq 1$  consonants):

1. A Latin word has as many syllables as it has vowels or diphthongs ( $\text{au}$ ,  $\text{ei}$ ,  $\text{eu}$ ,  $\text{y}$ ,  $\text{yi}$ ). Concerning word division, this rule should be interpreted as “vowel clusters should be separated, except when they form a diphthong”:  $v_1-v_2$ , for  $(v_1, v_2) \notin \{(a, e), (a, u), (e, i), (e, u), (o, e), (u, i)\}$ . The necessary patterns are  $\text{a1a}$ ,  $\text{a1}$  (since  $\text{T}\text{E}\text{X}$  considers as one character)  $\text{a1i}$ ,  $\text{a1o}$ ,  $\text{a1}$  (same remark)  $\text{e1a}$ ,  $\text{e1}$ ,  $\text{e1e}$ ,  $\text{e1o}$ ,  $\text{e1}$ ,  $\text{i1a}$ ,  $\text{i1}$ ,  $\text{i1e}$ ,  $\text{i1o}$ ,  $\text{i1}$ ,  $\text{i1i}$ ,  $\text{i1u}$ ,  $\text{o1a}$ ,  $\text{o1}$ ,  $\text{o1i}$ ,  $\text{o1o}$ ,  $\text{o1}$ ,  $\text{o1u}$ ,  $\text{u1a}$ ,  $\text{u1}$ ,  $\text{u1e}$ ,  $\text{u1o}$ ,  $\text{u1}$ ,  $\text{u1u}$ .
2. When a single consonant occurs between two vowels, divide before the consonant:  $v_1-c_1v_2$ . The required patterns will be  $\text{1ba}$ ,  $\text{1b} \dots \text{1zu}$ .
3. In the case of two or more consonants, divide before the last consonant except in the combinations: mute ( $p$ ,  $ph$ ,  $b$ ,  $t$ ,  $th$ ,  $d$ ,  $c$ ,  $ch$ ,  $g$ ) + liquid ( $l$ ,  $r$ ), and  $qu$  or  $gu$ . The first part of this rule can be expressed as
  - $v_1c_1 \dots c_{n-3}-c_{n-2}c_{n-1}c_nv_2$   
if  $(c_{n-2}, c_{n-1}) \in \{(p, h), (t, h), (c, h)\}$  and  $c_n \in \{l, r\}$ ,
  - $v_1c_1 \dots c_{n-2}-c_{n-1}c_nv_2$   
if  $c_{n-1} \in \{p, b, t, d, c, g\}$  and  $c_n \in \{l, r\}$ ,  
and
  - $v_1c_1 \dots c_{n-1}-c_nv_2$ , otherwise.

The required patterns will be  $\text{ph2l}$ ,  $\text{ph2r} \dots \text{ch2r}$ ,  $\text{p2l} \dots \text{g2r}$  and  $\text{p2h}$ ,  $\text{t2h}$ ,  $\text{c2h}$  which is not stated in the rule but seems to be an implicit consequence, especially since “ $th$ ”, “ $ph$ ”, “ $ch$ ” are just transliterations of the Greek letters  $\theta$ ,  $\phi$ ,  $\chi$ .

The second part of the rule (“and  $qu$  or  $gu$ ”) is not clear. According to the examples given in [Chi] (“ $e-quus$ ”, “ $lin-gua$ ”) the author estimates that the correct interpretation is “consider ‘ $qu$ ’ and ‘ $gu$ ’ as single consonants”. It follows from this interpretation, that these two clusters form exceptions to rule 1 and that hyphenations “ $qu-a$ ”, “ $gu-a$ ” ... “ $gu-u$ ” should be prohibited. The required patterns are  $\text{qu2a} \dots \text{gu2u}$ .

4. Compound words are separated first into their component elements; within each element the foregoing

rules apply. The patterns needed to fulfill this rule will be discussed in next section.

There is no mention of minimal left and right hyphenations; after comparing several Latin editions, the author considers the traditional values for `\lefthyphenmin` and `\righthyphenmin` to be 2 and 3 (as in English).

## 7 Hyphenation of Latin compound words

As with ancient Greek, the first idea would be to make patterns out of *roots*: “ab” is such a root, a pattern `ab` would insure hyphenation of “ab-undare”, “in-abundare” and so forth. The problem is again that the cluster “ab” is contained in thousands of other words, where it should be hyphenated as “a-b” (“la-bor”, “pro-ba-bi-lis”, “fa-bu-la”, etc.). Therefore the same method is applied as in ancient Greek: *only beginnings of words are taken into account*. As the reader will see in next section where all patterns are listed, hyphenation **ab-** at the beginning of a word is a general rule, with certain exceptions (“a-bacus”, “a-bitus”, and so forth). To hyphenate correctly the word “abs-cidere”, a pattern “abs-ci” has been introduced; this pattern produces wrong hyphenation of word “ab-scindere”, and so a second pattern “ab-scin” is introduced.

This explains the format of the pattern list in next section: indentation and the symbol indicate entries, exceptions and exceptions to exceptions. The endings of words placed between parentheses are just examples, they are not taken into account in pattern construction. Entries in boldface are “general rules”. For these, no example is given. The same format has been used in the list of patterns for ancient Greek compound words, in section 5.

## 8 Patterns for Latin compound words

### ab-

a-bac(us)  
 a-bit(us)  
 abs-ce(dere)  
 abs-ci(dere)  
     ab-scin(dere)  
 abs-co(nderere)  
 abs-que  
 abs-te(mius)  
 abs-ti(nere)  
 abs-tr(ahere)

### ad-

a-gnasc(i)  
 amb-i(gere)  
 antid-ea  
 a-sc(enderere)  
 a-sperg(ere)  
 a-spern(ari)  
 a-spi(cere)  
 a-ste(rnere)

a-sti(pulari)  
 a-stre(pere)  
 a-strin(gere)  
 a-strue(re)  
 a-stup(ere)  
 cav-(dium)  
**circum-**  
 cis-al(pinus)  
 cis-rh(enanus)  
**com-**  
     co-met(es)  
     co-mi(cus)  
     co-m(dia)  
 de-sc(enderere)  
 de-sp(icere)  
 de-st(inare)  
 di-ch(oreus)  
 di-gn(oscere)  
 dir-im(ere)  
 di-scrib(ere)  
 di-sperg(ere)  
 di-spi(cere)  
 di-sta(re)  
 di-sting(uere)  
**ex-**  
 id-eo  
**in-**  
     i-nan(is)  
     ianim(us)  
 ind-ue(re)  
 ind-ep(tus)  
 ind-ig(es)  
 ind-ip(iscor)  
 ind-ue(re)  
 ini-ti(a)  
**inter-**  
 long-v(us)  
 neg-oti(um)  
**ob-**  
     obli-vi(o)  
     oblon-(gus)  
     ob-di(re)  
 pn-ins(ula)  
**per-, post-, pr-**  
 prod-ir(e)  
 prod-es(se)  
 prod-ig(ere)  
 pro-sc(nium)  
 pro-sp(ectus)  
 pro-st(are)  
 quinc-un(x)  
 quot-an(nis)  
**re-**  
     red-(arguere)  
     re-don(are)  
     re-dor(mire)  
     re-duc(ere)  
 sat-ag(ere)  
 satis-ac(cipere)

sem-un(*ciarius*)  
 sem-us(*tulatus*)  
 sesc-en(*naris*)  
 sic-ut(*i*)

**sub-, super-**  
 su-scr(*ibere*)  
 su-sp(*icere*)  
 ter-un(*cius*)  
 trans-ab(*ire*)

**trans-**  
 tran-sil(*ire*)  
 tran-su(*ere*)  
 trans-us(*que*)  
 vel-ut(*i*)

## 9 Examples

Follow some examples of hyphenated ancient Greek and Latin texts. The symbol ÷ indicates hyphenation using patterns from sections 5 and 8.

Ἐντεῦ÷θεν ἐξ÷ε-λαύ-νει σταθ-μοὺς τρεῖς πα-  
 ρα-σάγ-γας πεν-τε-καί-δε-κα ἐ-πί τὸν Εὐ-φρά-την  
 πο-τα-μόν, ὄν-τα τὸ εὐ-ρος τετ-τά-ρων στα-δί-ων  
 καὶ πό-λις αὐ-τό-θι ᾧ-κεῖ-το με-γά-λη καὶ εὐ-δαί-  
 μων Θά-ψα-κος ὄ-νο-μα. Ἐνταῦ÷θα ἔ-μει-νεν ἡ-μέ-  
 ρας πέν-τε. Καὶ Κῦ-ρος με-τα-πεμ-ψά-με-νος τοὺς  
 στρατ÷η-γοὺς τῶν Ἑλ-λή-νων ἔ-λε-γεν ὅ-τι ἡ ὀ-δὸς  
 ἔ-σοι-το πρὸς βα-σι-λέ-α μέ-γαν εἰς Βα-βυ-λῶ-να·  
 καὶ κε-λεύ-ει αὐ-τοὺς λέ-γειν ταῦ-τα τοῖς στρα-τι-ώ-  
 ταις καὶ ἄ-να-πεί-θιν ἔ-πε-σθαι. Οἱ δὲ ποι-ή-σαν-  
 τες ἐκ-κλη-σί-αν ἀπ÷ήγ-γε-λον ταῦ-τα· οἱ δὲ στρα-  
 τι-ῶ-ται ἔ-χα-λέ-παι-νον τοῖς στρατ÷η-γοῖς, καὶ ἔ-  
 φα-σαν αὐ-τοὺς πά-λαι ταῦτ' εἰ-δό-τας κρύ-πτειν,  
 καὶ οὐκ ἔ-φα-σαν ἰ-έ-ναι, ἐ-ὰν μή τις αὐ-τοῖς χρή-  
 μα-τα δι-ᾶῶ, ὥ-σπερ τοῖς προ-τέ-ροις με-τὰ Κῦ-ρου  
 ἄ-να-βᾶ-σι [πα-ρὰ τὸν πα-τέ-ρα τοῦ Κῦ-ρου], καὶ  
 ταῦ-τα οὐκ ἐ-πί μά-χη-ν ἰ-όν-των, ἀλ-λά κα-λοῦν-τος  
 τοῦ πα-τρὸς Κῦ-ρον. Ταῦ-τα οἱ στρατ÷η-γοὶ Κῦ-  
 ρῷ ἀπ÷ήγ-γελ-λον. Ὁ δ' ὑπ÷έ-σχε-το ἄν-δρὶ ἐ-κά-  
 στῷ δώ-σειν πέν-τε ἀρ-γυ-ρί-ου μνᾶς, ἐ-πὰν εἰς Βα-  
 βυ-λῶ-να ἦ-κω-σι, καὶ τὸν μι-σθὸν ἐν-τε-λή-μει-χρι  
 ἄν κα-τα-στή-σῃ τοὺς Ἑλ-λη-νας εἰς Ἴ-ω-νί-αν πά-  
 λιν. Τὸ μὲν δὴ πο-λὺ τοῦ Ἑλ-λη-νι-κοῦ οὕ-τως ἐ-  
 πεί-σθη.

*from Ξε-νο-φῶν-τος Κῦ-ρου Ἀ-νά-βα-σις. [Ξεν]*

Flu-men est Arar, quod per fi-nes H-du-o-rum et  
 Se-qua-no-rum in Rho-da-num in-fluit, in-cre-di-bili le-  
 ni-tate, ita ut ocu-lis in ut-ram par-tem fluat iu-di-cari  
 non pos-sit. Id He-lu-e-tii ra-ti-bus ac lin-tri-bus iunc-tis  
 trans÷i-bant. Vbi per ex-plo-ra-to-res C-sar cer-tior fac-  
 tus est tres iam par-tes co-pia-rum He-lu-e-tios id flu-men  
 tra-du-xisse, quar-tam fere par-tem citra flu-men Ara-  
 rim re-li-quam esse, de ter-tia ui-gi-lia cum le-gi-o-ni-  
 bus tri-bus e cast-ris pro-fec-tus ad eam par-tem pe-ru-e-  
 nit qu non-dum flu-men trans÷i-e-rat. Eos im-pe-di-tos

et in÷o-pi-nan-tes ad-gres-sus mag-nam par-tem eo-rum  
 con-ci-dit: re-li-qui sese fug man-da-runt at-que in pro-  
 xi-mas si-luas ab-di-de-runt.

*from C-sa-ris Com-men-ta-rii de Bello Gal-lico. [C]*

## 10 Availability

The files AGRhyphen.tex and LATHyphen.tex contain-  
 ing hyphenation patterns for ancient Greek and Latin (as  
 described in this paper) are part of the ScholarT<sub>E</sub>X pack-  
 age.

The hyphenation patterns for modern Greek men-  
 tioned in section 2 (file GRhyphen.tex) are in the pub-  
 lic domain; they are included in Euro-OzT<sub>E</sub>X and can  
 also be obtained directly from the author. Readers in-  
 terested in Greek (ancient or modern) are invited to join  
 the ELLHNIKA discussion list, by sending the SUBSCRIBE  
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