

with ε; 2) reduplication of an initial consonant with ι; 3) reduplication of an initial syllable; 4) reduplication that takes the same form as augment (§§0335-3400). Type 2) is confined to the present tense and appears in only a few verbs (to be noted subsequently). Type 3) is rare in any case, but appears in both the aorist and perfect. Types 1) and 4) are characteristic of the perfect.

343. Reduplication by doubling an initial consonant with ε, and by augment.

343.1 A *single* initial consonant is doubled with ε to form a prefixed syllable:

πιστεύω, <i>I believe</i>	πεπίστευκα	πεπίστευμαι
ποιέω, <i>I do, make</i>	πεποίηκα	πεποίημαι
λαλέω, <i>I say, speak</i>	λελάληκα	λελάλημαι

343.2 An initial consonant (always a stop) followed by λ or ρ is also doubled with ε:

γράφω, <i>I write</i>	γέγραφα	γέγραμμαι
κρίνω, <i>I judge</i>	κέκρικα	κέκριμαι
πληρώω, <i>I fill</i>	πεπλήρωκα	πεπλήρωμαι

343.3 If the stop to be doubled is aspirated (pronounced with a strong emission of breath), the corresponding smooth stop (aspiration absent) is employed in forming the reduplicated syllable: τ for θ, π for φ, κ for χ (the reason being that one would begin to lisp if not to list had he to pronounce θεθ- or φεφ- very often):

φανερῶω, <i>I show</i>	πεφανέρωκα	πεφανέρωμαι
θεάομαι, <i>I see</i>		τεθέαμαι
χράομαι, <i>I make use of</i>		κέχρομαι

343.4 If, however, the verb stem begins with a double

consonant (ζ, ξ, ψ), or with two (three) consonants other than a stop with λ or ρ, or with a vowel, the stem is augmented for reduplication, in accordance with the rules set out in §§336ff.

ἀγαπάω, <i>I love</i>	ἠγάπηκα	ἠγάπημαι
ἐλπίζω, <i>I hope</i>	ἤλπικα	
εὐλογέω, <i>I praise</i>	εὐλόγηκα	εὐλόγημαι
ξηραίνω, <i>I dry up</i>		ἐξηήραμαι
(ἀπο)-στέλλω, <i>I send away</i>	-έσταλα	-έσταλμαι

↓ 3430. Notes:

3430.1 Initial ρ is sometimes reduplicated in accordance with §343.1, i.e. ρερ-, sometimes augmented (for reduplication) as indicated in §3360.1, i.e. ἐ(ρ)ρ-. A full list of verbs with initial ρ showing augment or reduplication is appended. Cf. B1-D §11(1).

<i>Present</i>	<i>Aorist act.</i> <i>-mid.</i>	<i>Perfect act./</i> <i>midd.-pass.</i>	<i>Aorist pass.</i>
ρύομαι	ἐ(ρ)ρυσάμην		ἐ(ρ)ρύσθην
ῥαθυμέω	ἐραθύμησα		
ῥιζόω	-ερίζωσα	ἐρριζωμένος	-ερίζωθην
ῥίπτω	ἔ(ρ)ριψα	ἐ(ρ)ριμμένος	-ε(ρ)ρίθην
Imperf. ἐ(ρ)ρίπτουν			
ῥαβδίζω			ἐραβδίσθην
ῥαντίζω	ἐράντισα	ῥεραντισμένος	
ῥαπίζω	ἐράπισα		
ῥαίνω	ἔρρανα	-εραμμένος	
ῥυπαίνω			ἐ(ρ)ρुπάνθην
ῥήγνυμι	ἔ(ρ)ρηξα	-έρρηγα	-ε(ρ)ράγη
ῥώννυμι		ἔρρωμαι	
[εἶρω] (λέγω) εἶπον		εἶρηκα, εἶρηται	ἐρρέθην

3430.2 There are some exceptions to the rules formulated in §§343.2, 343.4, i.e. stop + λ (ρ), double initial consonant with

ε; otherwise augment:

μνηστεύω	έμνηστευμένην, but μεμνηστευμένη also appears
κτάομαι	κέκτημαι
πίπτω (stem: πτω-)	πέπτωκα
βδελύσσομαι	έβδελυγμένος
κάμνω (stem: κμη-)	κέκμηκα
τέμνω (stem: τμη-)	-τέτμηκα / -τετμημένος
θνήσκω	τέθνηκα
μιμνήσκω (stem: μνη-)	μέμνημαι

3430.3 A cluster of three consonants, even where the last two are stop plus λ or ρ, is augmented for reduplication:

σφραγίζω	έσφραγισμένος
στρωννύω	έστρωμένος

3430.4 A few verbs show an odd form of augment for reduplication:

<i>Base</i>	<i>Perfect</i>
έθίζω	είτισμένος
είπον (aorist)	είρηκα
έλκώ	είγκωμένος
εργάζομαι	είργασμένος
-ίημι	-έωνται
ΐστημι	ΐστηκα / -εσταμένος
λαμβάνω (stem: λαβ-, ληβ-)	είληφα
δράω	έδρακα έώρακα

Most of these forms are to be accounted for by the original presence of an initial consonant now lost, e.g. είργασμένος < έφεργάζομαι: the *ϕ* was lost and ε-ε contracted to εί-. ΐστηκα derives from *σέστηκα: initial sigma was lost and rough breathing introduced to mark the loss (Smyth §119; cf.

ἵστημι [present base] for *σῑστημι). Cf. §§3371f. for the augment of these and similar verbs.

3430.5 What appears to be an odd form of augment for reduplication in some verbs owes to the formation of the present tense stem, e.g. αἶρω, aorist ἤρα, perfect ἤρακα/ἤρμαι: stem ἄρ-, in present tense supplemented by ἱ = ἄρῑ < αἶρ- (§484.4 and Appendix III, Class III.4); the aorist and perfect forms are thus 'regular' when regarded from the standpoint of the verb base rather than † the present base.

344. Reduplication by doubling an initial syllable. Some verbs reduplicate by doubling an initial syllable (α, ε, ο plus a single consonant) and lengthening the second vowel (α, ε < η, ο < ω):

ἀκούω	ἀκήκω (> ακ-ακο-)
ἐγείρω (stem: ἐγερ-)	ἐγήγερμαι (> εγ-εγερ-)
ἐλαύνω (stem: ἐλα-)	ἐλήλακα (> ελ-ελα-)
έρχομαι (aorist: ἤλθον, stem: ἐλυθ-)	ἐλήλυθα (> ελ-ελυθ-)
ὄλλυμι (stem: ὄλε-)	-ολῶλεκα (> ολ-ολε-)
φέρω (aorist, perfect stem: ενενεκ-)	ἐνήνοχα (> εν-ενοχ-)

This form is called 'Attic' reduplication.

3440. Notes:

3440.1 Ἔρχομαι and φέρω are 'irregular' verbs, i.e. they employ more than one root in the constitution of a single set of principal parts (§487).

3440.2 Φέρω has a reduplicated aorist (§§345.1, 487.10):
ἤνεγκα (> εν-ενεκ > εν-ενκ [loss of vowel, called syncope, Smyth

§44] > ενεγκ- [assimilation, §929.2]). The aorist and perfect must therefore be distinguished on the basis of stem: ἐνεγκ-/ἐνηνοχ-.

† 345. Reduplication in tense systems other than the perfect.

345.1 Aorist system. Two verbs show a reduplicated aorist (active) stem, in both cases by doubling the initial syllable:

ἄγω	ἤγαγον	(< αγ-αγ)
φέρω	ἤνεγκα	(s. §3440.2)

345.2 Present system. A larger number of verbs have reduplicated present bases. Reduplication in the present consists of doubling the initial consonant with ι. The aorist stem is given in the tables below so that the unreduplicated base may be observed.

a) Reduplicated -σκω verbs (Appendix III, Class V.3). The present base = the reduplicated verb base, supplemented by -σκω:

<i>Present</i>	<i>Aorist</i>
βιβρώσκω	έβρώθην (passive)
γινώσκω (for classical γιγνώσκω)	έγνω
-διδράσκω	-έδραν
μιμνήσκομαι	-έμνησα
πιπράσκω	έπράθην (passive)
τιτρώσκω	-έτρωσα

b) Reduplicated μι-verbs (Appendix III, Class I.7b).

<i>Present</i>	<i>Aorist</i>
δίδωμι (stems δω-, δο-)	έδωκα
-ίημι (> *σι-σημι, stems ή-, έ-)	-ήκα
ἴστημι (> *σι-στημι, stems στη-, στα-)	έστησα
κίχρημι (stem χρη-)	έχρησα
δίνημι (> *δν-ονημι, stems δνη-, όνα-)	όνάμην

πίμπλημι (> *πι-πλημι, stems πλη-, πλα-)	ἔπλησα
πίμπρομημι (> *πι-προμημι, stems προ-, πρα-)	ἔπρησα
τίθημι (> *θι-θημι, stems θη-, θε-)	ἔθηκα

c) Reduplicated regular ω-verbs (Appendix III, Class I.7a)

<i>Present</i>	<i>Aorist</i>
γίνομαι (for classical γίγνομαι, stems γν-, γεν-, γον-, γενε-)	ἔγενόμην
πίπτω (stems πτ-, πετ-, πτω-)	ἔπεσον
† τίκτω (> *τι-τεκω, stem τεκ-)	ἔτεκον

‡ 3450. Notes:

3450.1 Τίκτω derives from *τιτκ- by metathesis (interchange of consonants).

3450.2 Ὀνίνημι by rights is a doubling of the initial syllable (ον-ον-), but the second vowel is ι in conformity with reduplication in the present system; the initial ο appears therefore to have been ignored and the ν reduplicated with ι.

3450.3 Πίμπλημι and Πίμπρομημι develop a nasal, μ, after the reduplicated syllable; this μ is sometimes omitted when the verbs are compounded with ἐν (ἐμ-πί(μ)πλημι, ἐμ-πί(μ)προμημι): dissimilation (Smyth §129).

C. Tense Suffixes

0346.1 Most native speakers of English manage a very complex verb system with only an occasional slip. The reason they are able to do so is that the English verb is inflected largely in accordance with regular patterns which can be generalized (consciously or unconsciously) and then applied by analogy to other

verbs. The child learns early in the game for example, that the past tense of the English verb is often formed by adding -ed to the present tense: *I walk / I walked*. This pattern is applied, often with amusing results, to other verbs: *you hurt me / you hurted me; I eat this / I eated this*. What has not yet been mastered, of course, are the exceptions to the so-called 'weak' patterning of the verb.

0346.2 In gaining effective control over the verb system two things are thus necessary: 1) familiarity with the regular pattern; 2) explicit knowledge of the exceptions. The former constitutes an open class of verbs, i.e. it comprises the largest group of verbs and so cannot be learned as a list of individual items; the second constitutes a closed class and so must be learned as individual items, or groups of items. Non-regular (i.e. not conforming to the 'weak' pattern) verbs tend to fall into subgroups which follow identical or comparable patterns; they can therefore be divided into more or less distinct classes and learned as subgroups. A few verbs are inflected so irregularly as to defy grouping; the term 'irregular' is reserved in this grammar for this very small class of verbs.

The Regular Verb

346.1 Just as the speaker of English learns that -ed forms the past tense of most English verbs, so the speaker or writer of Greek learned that -σα formed the past tense of a large class of verbs in Greek. Taking the 'regular' verb πιστεύω, *I believe*, as model, the past tense of the indicative (normally = aorist rather than imperfect) is formed by prefixing ἐ- (augment, added to all secondary tenses in the indicative) to the present base, and suffixing -σα: πιστεύω/ἐπίστευσα, *I believed*. This pattern may be applied to many other verbs whose stems end in a vowel:

ἀκούω, *I hear* / ἤκουσα, *I heard*
 κωλύω, *I hinder* / ἐκώλυσα, *I hindered*
 παύω, *I stop* / ἔπαυσα, *I stopped*

The first person singular aorist active indicative serves as the *third* principal part of the Greek verb (§§302.2, 303).

346.2 The *second* principal part is the first person singular *future* active indicative. It is formed regularly by inserting σ between the verb stem and personal ending as they are found in the present tense: πιστεύω, *I believe* / πιστεύσω, *I will believe*.

ἀκούω / ἀκούσω, *I will hear*
 παύω / παύσω, *I will stop*

From these few examples it can be learned that -σ- is regularly the tense sign (tense suffix) of the future, and -σα the tense sign (suffix) of the regular or 'weak' aorist (first aorist, as it is called).

346.3 The *fourth* principal part is the first person singular perfect active indicative, the *fifth* the first person singular perfect *middle-passive* indicative. These principal parts are formed by reduplicating the present base (§§341-3450) and adding the tense suffix -κα to form the regular or 'weak' perfect active (first perfect; cf. first aorist): πιστεύω / πεπίστευκα, *I have believed*. The perfect middle-passive is formed by adding primary middle-passive endings directly to the *perfect* base: πεπίστευμαι, *I have been believed*.

The tense sign or suffix of the first perfect active is thus -κα, while the perfect middle-passive has none (the reduplicated stem indicates, of course, that the form is perfect, the endings that the voice is middle-passive).

346.4 The tense sign of the regular or 'weak' aorist *passive* (the sixth principal part) is -θη-. Starting out again from πιστεύω, the stem is first augmented (έ-πιστευ-), and the tense sign then suffixed: έπιστευθη-. The secondary ending is -ν (§319): έπιστεύθην, *I was believed*.

347. Tense suffixes of the regular verb.

347.1 The tense suffixes together with the first person singular endings may be represented schematically (as the six principal parts).

<i>Present</i>	<i>Future</i>	<i>Aorist</i> (<i>active/ middle</i>)	<i>Perfect</i> (<i>active</i>)	<i>Perfect</i> (<i>middle- passive</i>)	<i>Aorist</i> (<i>passive</i>)
πιστεύω	-σω	-σα	-κα	-μαι	-θην

347.2 It should be kept in mind that the aorist forms will be augmented, the perfect bases reduplicated. These may be added to the schematic representation:

<i>Present</i>	<i>Future</i>	<i>Aorist</i> (<i>active/ middle</i>)	<i>Perfect</i> (<i>active</i>)	<i>Perfect</i> (<i>middle- passive</i>)	<i>Aorist</i> (<i>passive</i>)
πιστεύω	-σω	έ-----σα	πε----κα	πε---μαι	έ----θην

347.3 Since few verbs exhibit a full complement of tenses, further illustrations may be drawn from the principal parts of regular verbs in actual use, as represented in Bauer:

<i>Present</i>	<i>Future</i>	<i>Aorist</i> (<i>active/</i> <i>middle</i>)	<i>Perfect</i> (<i>active</i>)	<i>Perfect</i> (<i>middle-</i> <i>passive</i>)	<i>Aorist</i> (<i>passive</i>)
δουλεύω <i>I serve</i>	δουλεύσω	έδούλευσα	δεδούλευκα		
ίσχύω <i>I am strong</i>	ίσχύσω	ίσχυσα			ίσχύθην
λύω <i>I loose</i>	λύσω	έλυσα		λέλυμαι	έλύθην
παίω <i>I strike</i>		έπαισα			

For a complete list see Appendix III, Class I.1a.

The 'Strong' Verb

348. Some English verbs form their past tense by a change in the stem vowel (called *ablaut*): *sing / sang; drive / drove; know / knew*. These verbs are traditionally called 'strong' verbs. Greek also has 'strong' verbs in this sense: *λείπω, I leave*, forms an aorist *έλιπον, I left*, and a perfect active, *λέλοιπα*; the perfect middle reverts to the stem vowel of the present tense: *λέλειμμαi* (the final π of the stem is assimilated to the μ of the ending -μαι). *Φεύγω, I flee*, similarly, has an aorist, *έφυγον* (stem vowel is shortened); the perfect active, however, reverts to the stem vowel of the present: *πέφευγα*. *Πείθω, I persuade*, retains the present stem vowel in the aorist, *έπεισα*, but modifies it in the perfect active: *πέποιθα*. There are relatively few verbs showing vowel graduation in Greek, but, unfortunately, some of those that do are of relatively high frequency.

349. There is a second sense in which Greek has a 'strong' verb: three principal parts exhibit alternative modes of formation, and these modes are known as 'strong' formations, by