Chapter 40: Numerals

Chapter 40 covers the following: Latin numerals, both cardinal and ordinal numbers; various uses of the genitive and ablative cases, and at the end of the lesson we’ll review the vocabulary which you should memorize in this chapter.

There are two important rules to remember in this chapter: (1)The only cardinal numbers which decline in Latin are unus, duo, tres and mília (“one, two, three and thousands”). (2) Latin expresses partition (e.g. “all of …, some of …”) in two ways: 1) with the genitive which is used with mília (“thousands”), superlatives, words designating partition, and certain pronouns and adjectives; or, 2) with ex/de + ablative which is used with all numbers except mília and quidam (“certain”).

Funny, isn’t it? The first thing most people learn when they start studying French is un, deux, trois (meaning “one, two, three”), or in German it’s eins, zwei, drei, but unus, duo, tres is the last thing Wheelock introduces, and he’s right. While numbers are basic words in most modern languages and there’s no doubt were used often and widely in Roman society, numerals are relatively rare in the Latin texts preserved from antiquity. And why is that? Among the ancient authors whose works have survived to our day, there is a general disinterest, if not a strong distrust, in the value of quantifying information. In many ways it’s the complete opposite of the way we rely and dwell, indeed count on anything expressed numerically, a fixation bordering on arithmophilia, the intense love of numbers, that utter confidence many of us have in any fact that’s been garbed in mathematical terms. The ancients saw things very differently, or at least those did who today serve as representatives of their time. Most Roman authors were aristocrats of some sort, and even those who weren’t born into the upper classes were writing almost exclusively for a rich and leisured readership. Who else could afford the time and expense it took to peruse literature in those days? And ironically, although the monies in their bank accounts numbered into the millions, those very wealthy ancient nobles disdained counting as such. To them, economics and finance were mundane, middle-class business, not the sort of pursuit that well-bred people pursue. Don’t believe me? Go read Cicero, Vergil, Ovid, Seneca — Seneca, one of the richest men ever in Rome, who certainly had plenty of coins he could have counted! — and you’ll cover vast passages in which there’s not a single numeral to be found. Even Caesar, a general who had to think constantly about enemy numbers, casualties, supplies and the like, includes remarkably few numerals, which is not to say numbers are completely absent from his Commentaries — indeed, he includes far more than you’ll find in any work by the more stylish and sophisticated historian Tacitus — but you will also find far fewer numbers as such than anyone would expect from a general. Certainly, no one in the Pentagon today could get away with including so little math.

There is, however, one exception, not from Latin literature but Greek, Herodotus, the first and only major classical historian who clearly came from the middle-class and all but definitely wrote for the same. His Histories, by comparison, are full of accounts and figures, prices and numbers, for instance, his infamous calculation of the total number of Persians led by Xerxes into Greece during the Second Persian War: 5,283,220, an estimation which was and sometimes still is mocked as absurd, to many a feeble reach for precision in a context where the data are too unreliable to support any such detailed conclusion. Uncertainty, it must be acknowledged, goes
both ways, of course. It’s equally impossible to affirm that Herodotus is wrong, a fact made all
the more poignant when we remember that other “absurdities” in The Histories, like the giant
canal he says Xerxes built in Thessaly, once roundly denounced as a fiction, has been found by
modern archaeologists. I digress. The point is those in antiquity with the power to exalt some
works and censure others saw numbers as less important than philosophy, for instance, or fate,
character, religious belief, even love. Those were to them matters suitable for gentlemen to
discuss, and that’s why at the end of this class, in the very last chapter of Wheelock’s textbook,
we will finally learn “one, two, three.”

Numerals such as those are called “cardinal numbers.” To read the authors whose works you are
most likely to study in the wake of this course, you need to know only the numbers 1 through 10,
20, 100, 1000 and 2000 (and up). These are the only numerals you’re likely to encounter, and
therefore the only ones worth memorizing. Even if you should run into any of the others — and
that would be very “less vivid” — it’s no great effort to decrypt them. So let’s start at the
beginning, the very beginning, “a very good place to start, when you count you begin with …
unus (“one”): unus, -a, -um, which you already know. Wheelock introduced unus way back in
Chapter 9, where you learned it has two irregular forms, a genitive unus, and a dative uni. And
remember this? While there aren’t singulars for two, three and so on, there is a plural for “one”:
uni, meaning “ones,” i.e. “individuals.”

Its successor is duo, the Latin for “two,” here fully declined, in the plural only, of course. The -o
ending in the masculine and neuter nominative and neuter accusative is an artifact of a whole
separate grammatical number — yes, number! like singular or plural! — a whole separate number
that once existed in Proto-Indo-European. That’s right. PIE had three — count ‘em! three! —
numbers: singular, dual and plural, as in “I’m going” (singular), “The two of us are going”
dual), and “They (being three or more) are going” (plural). A fully operative dual with distinct
noun and verb endings is still visible in Sanskrit, the ancient Indo-European language of India,
and though dying, the dual in ancient Greek was still alive enough to show up occasionally in the
works of some authors like Plato. In Latin — bless the Romans! — the dual is dead, its fossil
imprint found only in words with a strong “two” sense like duo and ambo, the Latin word for
“both.” Ambo gives us the word “ambidextrous,” meaning “able to use both hands with equal
effectiveness.” The other forms of duo show that well before the Classical Age the Romans had
been busy replacing the original dual endings with plural forms drawn from more common and
familiar declensional systems, first/second mostly. That process of de-dualing had resulted in
duae, duorum, duarum, duos, duas, forms which account for almost half of duo — in which this
case is not unus. But for some reason in the dative and ablative, *duis did not appeal to the
Romans who preferred the more third-declension-like endings -obus and -abus, producing
duobus (masculine/neuter) and duabus (feminine). Let’s play “Grimm’s Law” again. An Indo-
European base *dv/ would have become what in English? Think dent- and “teeth.” Yes, “t-w-o,”
which explains something you learned in kindergarten, if not before, but may never have made
sense to you, the fact that “two” (the number) is spelled with a “w,” even though we have chosen
not to say “one, tawoo” — dignity may have played a role in that decision — the “w” in “two” is
an artifact of the /w/ sound inherited from Proto-Indo-European and still fully audible in Latin
duo. Why after all these years English still includes the “w” in the written form of “two” is
unclear. Are we the slaves of tradition? Or just lazy? Or is it that changing the spelling to “tu”
means a lot of work with little reward. Should we also start spelling “one” w-u-n? Wun, tu, …?
“Three”! In Latin that’s *tres, tria*, the last of the low cardinals that decline. As a fully regular third-declension adjective, it’s *i*-stem of course. The base *tri-* is cognate with English “three,” cf. Latin “*pater*” vs. English “father.”

Henceforth, from 4 to 1999, Latin numbers are indeclinable adjectives. They don’t change form and which noun they modify in a sentence can be determined only in context — for instance, in a sentence where there’s only one plural noun — or by proximity. In other words, the number’s right next to what it goes with. Latin “four” is *quattuor*, “five” is *quinque* — note that in both *quinque* and *quattuor*, Latin has *qu-* where we have *f-* (“five, four”), if that helps with the memorizing — “six” is *sex*, “seven” is *septem*, “eight” is *octo*. [The *-o* ending is clearly dual, so *octo* must originally have meant “two sets of…”] well, I guess, it has to be four. Is that a remnant perhaps of counting by fingers four at a time, or by hands, the way the height of horses is sometimes still measured in “hands”? “Nine” is *novem*, and “ten” is *decem*. Do these last four numbers sound at all familiar? Think months: September, October, November, December. Obviously to the Romans, those are months number seven, eight, nine and ten. So what’s their month number one? Count it backwards. Is it January, our first month? No, it’s … March, the month the Romans named after Mars, their god of war. According to myth, he was also the father of Romulus and Remus, the founders of the Roman nation, so it’s appropriate that his month was the first in their calendar. And here’s another thing to know about Mars. Early in Roman history he wasn’t a war god, but a fertility deity who oversaw agriculture, so it’s also appropriate that his month is March because that’s when spring comes and farming can begin. And here’s yet something else to know about the Roman calendar. Until the beginning of the Roman Empire in the first century, the fifth and sixth months were called *Quin(c)tilis* and *Sextilis* (meaning “Fifth” and “Sixth”), but after Julius and Augustus Caesar these months were renamed July and August. I approve. I think it’s good we don’t have months named Quinct and Sext.

The Latin numbers for 11 through 19 are listed in Wheelock on page 384 but you’re not required to know them for this class. “Twenty” is *viginti* — please learn that number — “twenty-one” is *viginti unus* or *unus et viginti*. You don’t need to know that. The next number you need to memorize is *centum*, “one hundred.” “A hundred and one” is *centum unus*, but don’t worry about that. The next and last number you need to know is *mille* (“one thousand”) and its plural *milia, milium* (“thousands”). The singular of *mille* doesn’t decline, just like all numbers from 4 to 1000, but the plural *milia* (“thousands”) does, so in Latin declining begins again at 2000. *Milia* is a regular, third-declension neuter noun, except that it’s *i*-stem. *Mille* and *milia* are often paired with the genitive plural of the Latin word for “pace, step,“ *passus, passús* (fourth-declension, masculine), creating *mille/milia passuum* which means “mile/s,” an English derivative of this phrase. So, for instance, *tria milia passuum* means “three miles.”

Besides cardinal numbers like “one, two, three,” Latin also has ordinal numbers like “first, second, third.” Ordinals represent the “order, rank” of something, whereas cardinals — the term comes from the Latin word *cardo, cardinis* (“hinge”), the implication being “the thing on which everything ‘hinges’ or depends” — cardinal numbers are thus the “fundamental, chief, principal” means of calculating amounts, in other words, the basic numbers used in counting. Ordinals, conversely, show the standing or rank of something. English has inherited so many derivatives from Latin ordinals that I could make the argument you already know them. And my first piece
of evidence to prove that is *primus, -a, -um*, the first Latin ordinal, so it means “first.” *Primus* has given us words like “prime, primal, primate, primitive,” all words that share a sense of “first, early, basic.” We’ve, in fact, encountered *primus* back in Chapter 27 when you studied the irregular comparison of adjectives. There *primus* served as the superlative of *pro* (“forward”), *prior* (“former”), making *primus* literally “the fore-most, the first.” Indeed, English “fir-st” is exactly cognate with *primus*: /fɪ/ for /p/ (as you’d expect from Grimm’s Law), plus the superlative affix -(e)st, literally “(be)fore-most.”

“Second” is *secundus, -a, -um* — that shouldn’t be too hard to memorize — giving us words like “second, secondary, secondly.” *Secundus* is obviously unrelated to *duo*. Instead, it comes from the same base as *sequor*, the Latin verb for “follow.” So, it literally means “the following,” that is, the thing following the first. But *secundus* had a secondary connotation in Latin, “favorable.” If a good omen was followed by another good omen, thus reinforcing the gods’ positive message, the Romans saw it as supporting or confirming the first. From that we inherited a second sense attached to *secundus* which is seen in our verb “to second,” as in “to second a motion presented in a formal meeting,” i.e. to support it.

“Third” is *tertius, -a, -um*, from which we get “tertiary,” meaning “of/belonging to the third rank.” Not very helpful in remembering the Latin, huh? Oh well, just memorize it then. Moving on, we next find *quartus, -a, -um* means “fourth.” Lots of good derivatives here: “quart, quarter, quartet, quartile” The Latin word for “fifth,” *quintus, -a, -um*, also produces its share of derivatives: “quintet, quintuplet (one of five ‘twin’ babies”), quintessence.” “Quintessence” means “the perfect form of something,” a reference to the ancient belief that there was a perfect “fifth” element beyond the basic four: water, earth, air and fire. Quintessence was the property of this magical substance from which celestial bodies were purportedly composed. “Sixth” is *sextus, -a, -um*, producing in English “sextet, sextuplet — Six babies? Oy, that’s gotta hurt! — and sextant.” A sextant is an old instrument used by sailors to determine the location of a ship by measuring the position of stars and other celestial bodies. It’s named for its essential and most obvious part, the “sixth” of a circle as can be seen at the bottom of this slide. *Septimus, -a, -um* means “seventh.” *Octavus, -a, -um* means “eighth.” From that we get “octave, Octavian (a Roman-based name, originally the “eighth” child born into a family).” “Ninth” is *nonus, -a, -um*, and “tenth” is *decimus, -a, -um*, from which we derive our words “decimal, decimate,”

Originally, “decimate” was a reference to the Roman military practice of killing a “tenth” of the soldiers in an army unit, if there was even the hint of mutiny or desertion. Those soldiers to be slain were selected not because of any infraction they may have committed but merely by lot. In other words, if you tried to rebel or run away from your duty, you could get your innocent friend killed. There were notably few mutinies in Rome. Eventually, the brutality of this custom led to the misuse of its term which later came to mean “widespread (i.e. far more than one-tenth) destruction.” And since we’re on the subject of brutality, you are responsible for knowing “first” through “tenth” in Latin. Wheelock lists those ordinals on page 384.

Before leaving this subject, there are two important things worth noting about ordinals. First, they’re all first/second-declension and all perfectly regular. Second, see the -t affix which the majority of Latin ordinals sport? The cardinal *quintus* (“five”), for instance, becomes the ordinal *quintus* (“fifth”). *Sex* (“six”) turns into *sextus* (“sixth”). Now, look at the same pattern in English,
where we add \textit{-th}: fourth, fifth, sixth, and so on. This pattern also follows Grimm’s Law which says \textit{/t/ will become /th/}, as in \textit{pater} and “father.”

To wrap up Latin grammar and end this course, we need to address two cases, the genitive and the ablative, in their various and manifold uses. Let’s begin with the genitive, and one of its most widely seen applications, the \textbf{partitive genitive}, which is also called the “genitive of the whole.” This is the use of the genitive seen in phrases like “some of us, those of you.” It shows the group to which a certain sub-group belongs. The partitive genitive is often used with numerals in Latin, but only those numbering two thousand or more, as in “three thousand of us.” It also follows superlatives — as in “the best of them” — and certain words that designate partition, like \textit{pars militum} (“part of the soldiers”). Besides \textit{pars}, these “certain words” include \textit{plus} (“more”), \textit{satis} (“enough”), \textit{minus} (“less”), \textit{multum} (“much”), \textit{nihil} (“nothing”), \textit{tantum} (“so much”), \textit{quantum} (“how much”) and \textit{(ali)quid} (“what, something”). Note the idiomatic use of the genitive here with words like \textit{nihil} (“nothing”). That is, Latin says \textit{nihil boni} (lit. “nothing of good”), where English prefers “nothing good.” Likewise, Latin says \textit{multum pecuniae} (“much of money”), where we would say “much money,” and \textit{aliquid temporis} (“something of time”) as opposed to the more natural English “some time.” This proclivity toward the partitive genitive was passed on to Latin’s daughter languages, French, for instance, which says \textit{un peu de lait}, “a little (of) milk.” But the Romans also leaned the other direction sometimes. For instance, the Latin equivalents of some English words which call for partitive genitives demanded other sorts of constructions. For example, all numbers up to two thousand in Latin, as well as the pronoun \textit{quidam} (meaning “certain”), are followed by \textit{ex} or \textit{de} plus the ablative: to wit, \textit{sex de civibus} (meaning “six of — literally, from — the citizens”), or \textit{quidam ex eis} (meaning “certain of — literally, from — them”).

Besides the partitive genitive, there are other uses of this case we need to mention before dubbing you fully Latin-competent. Wheelock doesn’t discuss these uses of the genitive in the main part of his textbook, but he does include them in the Supplementary Syntax on page 374.

- The first is the \textbf{genitive of material}, which is best translated by “(made) of” in English. This is the “of” that indicates what something consists of, i.e. its content, as in \textit{poculum auri}, meaning “a goblet (made) of gold.”

- Next is the \textbf{genitive of description}, equivalent to “of, having” in English. This genitive describes someone or something, for instance, \textit{vir gloriae honorisque}, meaning “a man of/having renown and distinction.”

- And finally, the \textbf{objective genitive}, a usage we addressed briefly way back in Chapter 11 when we examined the difference between, for instance, \textit{nostrum} (“of us,” the partitive genitive) vs. \textit{nostri} (used mainly as an objective genitive). Now it’s time to formalize that lesson. The objective genitive depends on a noun which has a verbal sense inside it, such as “love” in the phrase “love of wisdom.” In Latin that would be \textit{amor sapientiae}. The action innate in the noun “love” can predicate an object — what’s being loved — but that object isn’t expressed in the accusative the way it is with a regular verb; rather, an objective genitive is used, like “of wisdom.” In other words, in “We love wisdom,” “wisdom” is accusative because it’s the object of “love,” here a verb. But in “love of
And to end the grammar in this chapter, in this course, in all of first-year Latin, let’s look at some uses of the ablative we haven’t addressed directly, though Wheelock has included some of them in his sentences. You’ll find these uses along with several examples of each in Latin on pages 376-377 of the Supplementary Syntax. You’re responsible for knowing them, starting with …

- the **ablative of specification**, which is best translated by the English preposition “in,” though Latin, please note, uses no preposition. The ablative of specification shows how something applies to whatever the sentence is talking about, for instance, *dives opibus*, meaning “rich in resources.” *Opibus* is the ablative of specification here. You’ll often find this usage attached to an adjective which it clarifies in some way.

- Next is the **ablative of cause**, meaning “because of, out of,” again, no preposition in Latin. It’s a close kin of the ablative of means except that the thing in the ablative here is almost always an abstract noun. Tools and instruments are the type of noun most often used in the ablative of means; the ablative of cause shows the reason a tool was used or any action undertaken. Here’s an example: *Timore magno fūgit*, meaning “He fled out of (because of) great fear.” That is, his legs were his means of fleeing, but his fear was the cause.

- The **ablative of degree of difference** — no preposition — means “by” when “by” shows the range, close or far, between two things. A comparative or superlative form is almost always somewhere nearby, as in *duobus milibus passuum longius*, meaning “(by) two miles further (i.e. off in the distance).” *Duobus milibus passuum* (“two miles”), the ablative here, indicates how much further away something is.

- And finally the **ablative of description**. The Romans could use either the ablative or the genitive (as we just saw) to describe something. “Of, with” are the best words to use in translating this species of ablative, for example, *bonā fide*, meaning “of/with good trustworthiness.” That phrase gave us the adjective “bona fide,” as in a *bona fide* offer, meaning a reliable one.

And here’s a *bona fide* offer, one I know you won’t refuse. Let’s call it quits on Latin grammar, because we’re done! That’s it for the grammar in this class.

Now here’s the last list of vocabulary words you have to memorize in this course, beginning with *caput, capitis*, n., meaning “head.” It’s a third-declension neuter noun, which is not *i*-stem. It doesn’t end -e, -al or -ar in its nominative singular. This word underwent a fascinating evolution in later antiquity. It was replaced as the principal word in Latin for “head” by another word *testa* which originally meant “potsherd,” that is, a broken piece of pottery. Thousands, perhaps millions, of ancient potsherds have been found. Below are a few examples. The question is, why did *testa* (“potsherd”) replace *caput*? Was it a joke, like “mug” for face — “Oh, I ran into a tree and I think I cracked my “potsherd”!” — which spread so widely and lingered so long that later generations innocently started saying *testa* for “head” because they didn’t know grandma was
making a joke? In much the same way, late ancient Romans stop using *equus* for “horse” and began instead saying *caballus*, the Latin word for “nag, an old broken-down horse.” Hence, “cavalier,” an English word for “knight,” and the Spanish word *caballeros*, meaning “gentlemen.” Linguistically, that means “nag-riders.” *Testa* is still the Italian word for “head.” In French, it became *tête*. German presents an interesting analogue. Its word for “head,” *kopf*, comes from a base that originally meant “cup.” Playing with “head” terms was apparently a widespread Indo-European tradition. Why? Who knows? In any case, even after being usurped from its “head” role, the Latin word *caput* didn’t die. Far from it! It had other senses to keep it going. For instance, it could also mean “an individual, a person,” as in *per capita*, a Latin phrase English borrowed wholesale, with the meaning “for each person, one by one,” literally “through/by heads.” Our phrase “head count” carries much the same sense. *Caput* could also betoken “life,” as in our adjective “capital,” like capital punishment. In yet another sense, the Romans used *caput* to mean “moveable property.” Thus, cattle for instance were counted by “heads,” as they still are in many parts of the world. Indeed, the very word “cattle” itself come from *caput*, because cattle were the Romans’ principal type of moveable property.

The next word is *dominus*, -i, m., meaning “master, lord,” a second-declension masculine noun.

And following that, another noun, *sensus, sensūs*, m., meaning “feeling, sense,” a fourth-declension masculine noun.

Next, Mr. Wheelock asks you to go to page 384 and learn the cardinal numbers one through twenty-five, and the ordinals first through twelfth, but for this class you need learn only the low cardinals one through ten and twenty, and the ordinals first through tenth. To that add the indeclinable adjective *centum*, “one hundred,” which is based on a well-attested Indo-European root that, for instance, shows up in Greek as *hekaton*. So it seems pretty certain Indo-Europeans could count up to one hundred at least. Beyond that looks less likely, since the Latin word for “one thousand,” *mille* — in the plural, *milia* which we noted above is third-declension *i*-stem — does not come from the same Indo-European base as its Greek counterpart *kilo*-. The linguistic origin of both is unclear. What is clear is that these words are unrelated, as is the English word “thousand,” which comes from a base *tum-*, meaning “swell,” the same base which underlies “tumor.” The absence of a common linguistic root for “thousand” suggests Indo-Europeans couldn’t, and probably had no need to, count that high. If they were nomadic, as some scholars think, and thus were forced to carry their possessions everywhere they went, they almost certainly didn’t own a thousand of anything. Counting to a thousand would have been pointless.

The next word is *iustus*, -a, -um, meaning “just, right.” It’s a first/second-declension adjective. We’ve seen the base underlying this word before in *ius, iuris*, a noun meaning “right, justice, law.” To this *iur-* base has been added the affix -t- which is often used to create adjectives. So *iustus* means literally “lawful.”

Next up is *tot*, meaning “so many,” another indeclinable adjective. Add this one to the sign words you learned in Chapter 29 which can introduce result clauses: *tam, talis, tantus, ita* and *sic*, and now *tot*, too. The correlative of *tot* is *quot*, meaning “how many.” Learn *quot*. 
The next word is *omnino*, an adverb meaning “wholly, entirely, altogether.” Not much to say about this, except that I think it would make a great brand name for a cookie — Omninos! They’re everything you want in a cookie!

So let’s move on to *miscio, miscere, miscui, mixtum*, meaning “mix,” a second-conjugation verb. How would Latin say “Don’t mix (plural) the old with the new!” [Hmmmm, “Don’t … do something!”] How do you say that in Latin?] Obviously, it’s a negative imperative. Do you remember how Latin forms those? [We talked about it in Chapter 32 when you studied *volo, nolo, malo*, Latin’s “wish” verbs. That’s right. You use *nolo* in the imperative mood, meaning literally “be unwilling (to …)” In the plural that would be …] *nolite*. And it takes a complementary infinitive. Now, how about “the old” and “the new”? [What are those? Yes, adjectives acting as nouns. What do you call those?] Oh right, substantives, and these are plural. [But what gender? Old … people? No! Old … things. New things. So these substantives are … what gender? Neuter. Now put all that together and you get … ] *Nolite vetera cum novis miscere*!

And finally, the final word on this vocabulary list, the final word you have to learn in all of Beginning Latin, is *reperio, reperire, repperi, repertum*, meaning “find, discover, learn, get,” a fourth-conjugation verb. The -per- in *reperio* is the same -per- seen in *experior*, a base, you’ll remember, that means “to cross a boundary,” here, the boundary between ignorance and understanding, what you do when you learn something. Note that the perfect active base *repperi*-features two *p’s*. This is a relic of reduplication, what was left after *repeperi* collapsed into *repperi*. Note also that this verb has both a physical sense “find” and a mental sense “learn.”

Do the rules that were cited at the beginning of this chapter now make sense to you? If not, please review this presentation. If so, please proceed to the next slide.

For the next class meeting, please bring in a copy of the P&R sentences for Chapter 40.

*Finis advēnit! Mecum retro numeremus! Decem, novem, octo, septem, sex, quinque, quattuor, tres, duo, unus. Perfecta omnia sunt! Nunc litteris Latinis utimini, O discipuli carissimi et sapientissimi! Valete et vivite diu et feliciter!*