Meno will arise: you will learn either nothing or what you already know.)

We should not argue in the way in which some who attempt to solve the problem do. ("Do you or don't you know of every pair that it is even?"—When you say "Yes", they bring forward some pair which you did not think existed, and hence which you did not think was even.) They try to solve the problem by denying that they know of *every* pair that it is even—rather, they know it only
71b of everything which they know to be a pair. Yet what they know is the item to which their demonstration applies and about which they made their assumptions; and they made their assumptions not about everything of which they know that it is a triangle or that it is a number, but about every number or triangle *simpliciter*. For no propositions of this sort are taken as assumptions (that what you know to be a number . . . , or what you know to be rectilineal . . .): rather, we assume that something holds of every case.

But surely nothing prevents us from in one sense understanding and in another being ignorant of what we are learning. What is absurd is not that you should know in *some* sense what you are learning, but that you should know it in *this* way, i.e. in the way and in the sense in which you are learning it.

CHAPTER 2

We think we understand something *simpliciter* (and not in the sophistical way, incidentally) when we think we know of the explanation because of which the object holds that it is its explanation, and also that it is not possible for it to be otherwise. It is plain, then, that to understand is something of this sort. And indeed, people who do not understand think they are in such a condition, and those who do understand actually are. Hence if there is understanding *simpliciter* of something, it is impossible for it to be otherwise.

Whether there is also another type of understanding we shall say later: here we assert that we do know things through demonstrations. By a demonstration I mean a scientific deduction; and by scientific I mean a deduction by possessing which we understand something.

If to understand something is what we have posited it to be, then demonstrative understanding in particular must proceed from items which are true and primitive and immediate and more familiar than and prior to and explanatory of the conclusions. (In this way the principles will also be appropriate to what is being proved.) There can be a deduction even if these conditions are not met, but there cannot be a demonstration—for it will not bring about understanding.

They must be true because you cannot understand what is not the case—e.g. that the diagonal is commensurate. They must proceed from items which are primitive and indemonstrable because otherwise you will not understand unless you possess a demonstration of these items (to understand something of which there is a demonstration non-incidentally is to possess a demonstration of it). They must be explanatory and more familiar and prior—explanatory because we only understand something when we know its explanation; and prior, if they are explanatory and we already know them not only in the sense of grasping them but also of knowing that they are the case.

Things are prior and more familiar in two ways; for it is not the same to be prior by nature and prior in relation to us, nor to be 72a
more familiar and more familiar to us. I call prior and more familiar in relation to us items which are nearer to perception, prior and more familiar *simpliciter* items which are further away. What is most universal is furthest away, and the particulars are nearest—these are opposite to each other.

To proceed from primitives is to proceed from appropriate principles (I call the same things primitives and principles). A principle of a demonstration is an immediate proposition, and a proposition is immediate if there is no other proposition prior to it. A proposition is one part of a contradictory pair,[1] one thing said of one. It is dialectical if it assumes either part indifferently and demonstrative if it determinately assumes one part because it is true. A statement is one part of a contradictory pair. A contradictory pair is a pair of opposites between which, in their own right, there is nothing. The part of a contradictory pair which says something *of* something is an affirmation; the part which takes something *from* something is a negation.

An immediate deductive principle I call a posit if it cannot be proved but need not be grasped by anyone who is to learn anything. If it must be grasped by anyone who is going to learn anything whatever, I call it an axiom (there are items of this

[1] Reading ἀντιφάσεως for the MS reading ἀποφάνσεως.

kind); for it is of this sort of item in particular that we normally use this name. A posit which assumes either of the parts of a contradictory pair—what I mean is that something is or that something is not—I call a supposition. A posit which does not I call a definition. Definitions are posits (arithmeticians posit that a unit is what is quantitatively indivisible), but they are not suppositions (for what a unit is and that a unit is are not the same).

Given that you must be convinced about some object and know it in so far as you possess a deduction of the sort we call a demonstration, and given that there is such a deduction in so far as *these* items—the items from which it proceeds—are the case, then you must not only already know the primitives (either all or some of them)—you must actually know them better. For something always holds better of that because of which it holds: e.g. that because of which we love something is better loved. Hence if we know and are convinced of something because of the primitives, then we know and are convinced of them better, since it is because of them that we know and are convinced of the posterior items.

If you neither actually know something nor are more happily disposed towards it than you would be if you actually knew it, then you cannot be better convinced of it than you are of something which you know. But this will arise if someone who is convinced of something because of a demonstration does not already have some knowledge; for he must be better convinced of the principles (either all or some of them) than he is of the conclusion.

Anyone who is going to possess understanding through a demonstration must not only get to know the principles better and be better convinced of them than he is of what is being
72b proved: in addition, there must be no other item more convincing to him or more familiar among the opposites of the principles from which a deduction of the contrary error may proceed—given that anyone who understands anything *simpliciter* must be incapable of being persuaded to change his mind.

CHAPTER 3

Some people think that because you must understand the primitives there is no understanding at all; others that there is, but that there are demonstrations of everything. Neither of these views is either true or necessary.

The one party, supposing that you cannot understand in any other way,[2] claim that we are led back *ad infinitum* on the ground that we shall not understand the posterior items because of the prior items if there are no primitives. They are right—for it is impossible to survey infinitely many items. And if things come to a stop and there are priniciples, then these, they say, are unknowable since there is no *demonstration* of them and this is the only kind of understanding there is. But if you cannot know the primitives, then you cannot understand what proceeds from them *simpliciter* or properly, but only on the supposition that they are the case.

The other party agrees about understanding, which, they say, arises only through demonstration. But they argue that nothing prevents there being demonstrations of everything; for it is possible for demonstrations to proceed in a circle or reciprocally.

We assert that not all understanding is demonstrative: rather, in the case of immediate items understanding is indemonstrable. And it is clear that this must be so; for if you must understand the items which are prior and from which the demonstration proceeds, and if things come to a stop at some point, then these immediates[3] must be indemonstrable.

We argue in this way; and we also assert that there is not only understanding but also some principle of understanding by which we get to know the definitions.

That it is impossible to demonstrate *simpliciter* in a circle is plain, if demonstrations must proceed from what is prior and more familiar. For it is impossible for the same thing at the same time to be both prior and posterior to something—except in different ways (i.e. one in relation to us and the other *simpliciter*), ways which induction makes familiar. But in that case, knowing *simpliciter* will not have been properly defined. Rather, it will be ambiguous. Or else the one demonstration is not a demonstration *simpliciter* in that it proceeds from what is more familiar to us.

For those who say that demonstrations may proceed in a circle there arises the difficulty which I have just described. In addition, they say nothing more than that this is the case if this is the case—and it is easy to prove everything in this way. It will be

[2] Reading ἄλλως, with most MSS, for the OCT's ὅλως.
[3] Placing a comma before rather than after τὰ ἄμεσα, with Schöne.