The Commentaries of Proclus on the First Book of Euclid's Elements of Geometry Translated by Thomas Taylor (London, 1792) Book I, Chapter 3

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[Thomas Taylor, The Philosophical and Mathematical Commentaries of Proclus, Vol. 1, p. 50 (1792).]

CHAP. III.

What the common Theorems are of the Mathematical Essences.

BUT as we have contemplated the common principles of things, which are diffused through all the mathematical genera, after the same manner we must consider those common and simple theorems, originating from one science, which contains all mathematical knowledge in one. And we must investigate how they are capable of according with all numbers, magnitudes and motions. But of this kind are all considerations respecting proportions, compositions, divisions, conversions, and alternate changes: also the speculation of every kind of reasons⁵, multiplex, super-particular, super-partient, and the opposite to these: together with the common and universal considerations respecting equal and unequal, not as conversant in figures, or numbers, or motions, but so far as each of these possesses a common nature essentially, and affords a more simple knowledge of itself. But beauty and order are also common to all the mathematical disciplines, together with a passage from things more known, to such as are sought for, and a transition from these to those which are called resolutions and compositions. Besides, a similitude and dissimilitude of reasons are by no means absent from the mathematical genera: for we call some figures similar, and others dissimilar; and the same with respect to numbers. And again, all the considerations which regard powers, agree in like manner to all the mathematical disciplines, as well the powers themselves, as things subject to their dominion: which, indeed, Socrates, in the Republic, dedicates to the Muses, speaking things arduous and sublime, because he had embraced things common to all mathematical reasons, in terminated limits, and had determined them in given numbers, in which the measures both of abundance and sterility appear.

⁵[DRW—Here ratios? ... ἕτι δὲ τὰ τῶν λόγων πάντων οἶον πολλαπλασίων καὶ ἐπιμορίων [καὶ] ἐπιμερῶν καὶ τῶν τούτοις ἀντικειμένων καὶ ἁπλῶς τὰ περὶ τὸ ἴσον καὶ ἀνισον καθόλου θεωρούμενα καὶ κοινῶς,... (Friedlein, p.7, 24–27).]