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(*b*. Larissa, *ft*. fifth century a.d.)

mathematics, philosophy.

Domninus was a Syrian Jew of Larissa on the Orontes. (In his entry in the *Suda Lexicon* Larissa is regarded as identical with Laodicea, but they appear to have been separate towns.) He became a pupil of Syrianus, head of the Neoplatonic school at Athens, and a fellow student of Proclus. He therefore lived in the fifth century of the Christian era.

Syrianus thought equally highly of Domninus and Proclus, and Marinus relates how he offered to discourse to them on either the Orphic theories or the oracles; but Domninus wanted Orphism, Proclus the oracles, and they had not agreed when Syrianus died. Marinus implies that Domninus succeeded to Syrianus' chair, but if so, he can only have shared it for a short time with Proclus. Their disagreement widened into a controversy over the true interpretation of Platonic doctrine from which Proclus emerged as the victor in the eyes of the Academy. Domninus withdrew to Larissa, and Damascius, the last head of the Neoplatonic school, while admitting Domninus' mathematical competence, accused him of being old-fashioned in philosophical matters. This may have been a partisan judgment. Nor need we pay much attention to an anecdote related by him and intended to show that Domninus lacked the true philosophic mind: When Domninus was troubled by spitting blood and the Aesculapian oracle at Athens prescribed that he should eat swine's flesh, he had no scruples about so doing despite the precept of his Jewish religion. Equally suspect are Damascius' allegations that when advanced in years Domninus loved only the conversation of those who praised his superiority and that he would not admit to his company a young man who argued with him about a point in arithmetic.

Nothing has survived of his philosophical teachings. A reference by Proclus (*In Timaeum*, I.34B; Diehl, ed., I. 109.30–110.12) indicates that Domninus took some interest in natural science. He held that comets were composed of a dry, vapor-like substance, and he explained the myth of Phaëthon by the assumption that the earth once passed through such a comet, the substance of which was ignited by the sun's rays and which in turn set the earth on fire.

It is on his mathematical work that his claim to remembrance rests. Nothing was known of this work until 1832, when J. F. Boissonade edited from two Paris manuscripts his Ἐγχειρίδιον ἀριθμητικῆς εἰσαγωγῆς ("Manual of Introductory Arithmetic"), and it was not until 1884 that its importance was recognized. Paul Tannery, who in the following year made a critical revision of Boissonade's text, then perceived that this brief work marked a reaction from the arithmetical notions of Nicomachus and a return to the sounder principles of Euclid. It may not be without significance that, according to Marinus, Proclus had become convinced by a dream that he possessed the soul of Nicomachus of Gerasa. Whereas numbers had been represented by Euclid as straight lines, Nicomachus had departed from this convention and, when dealing with unknown quantities, was forced into clumsy circumlocutions; he also introduced highly elaborate classifications of numbers, serving no useful purpose and difficult to justify. Proclus, according to the *Suda Lexicon*, wrote a commentary on Nicomachus" work, but without openly controverting him, Domninus, in the concise and well-ordered text edited by Boissonade, quietly undermines it. As Hultsch recognized, the book is arranged in five parts: an examination of numbers in themselves, an examination of numbers in relation to other numbers, the theory of numbers both in themselves and in relation to others, the theory of means and proportions, and the theory of numbers as figures. In general Domninus follows Euclid in his classification of numbers and departs from Nicomachus. He is content with the arithmetic, geometric, and harmonic means and finds no use for Nicomachus" seven other means. Like Euclid, he admits only plane and solid numbers. In writing this manual Domninus drew not only upon Euclid and Nicomachus but upon Theon of Smyrna and upon a source used by Iamblichus that has since disappeared.

At the end of the manual Domninus avows his intention of setting forth certain subjects more fully in an Ἀριθμητικὴ στοιχείωσις ("Elements of Arithmetic"). Whether he did so is not known, but a tract with the title Πῶς ἐστί λόγον ἐκ λόγον ἀφελεῖν ("How to Take a Ratio out of a Ratio"), edited by C. E. Ruelle in 1883, is almost certainly by Domninus and may have been written as part of the projected *Elements*. "Taking a ratio out of a ratio" does not mean subtraction but manipulation of the ratio so as to get it into other forms.

BIBLIOGRAPHY

Most of what is known about the life of Domninus comes from a long entry in the *Suda Lexicon* (Eva Adler, ed.) that seems to be derived from a lost work by Damascius. There is a short entry in Eudocia, *Violarium* 331. Flach, ed., 239. 7–10. Eudocia's

source appears to be the lost *Onomatologos* of Hesychius of Miletus; see Hans Flach, *Untersuchungen ueber Eudoxia und Suidas*, p. 60. A brief notice is given by Marinus, *Vita Procli*, ch. 26, in J. F. Boissonade ed.

Domninus' *Manual of Introductory Arithmetic* may be found in J. F. Boissonade, *Anecdota graeca*, IV (Paris, 1832), 413–429. Paul Tannery commented on it in "Domninos de Larissa," in *Bulletin des sciences mathématiques et astronomiques*, 2nd ser., **8** (1884), 288–298, repr. in his *Mémoires scientifiques*, II (Paris-Toulouse, 1912), 105–117; he revised Boissonade's text at points in "Notes critiques sur Domninos," in *Revue de philotogie*, **9** (1885), 129–137, repr. in *Mémoires scientifiques*, II, 211–222; he translated the work into French, with prolegomena, as "Le manuel d'introduction arithmétique du philosophe Domninos de Larissa," in *Revue des études grecques*, **19** (1906), 360–382, repr. in *Mémoires scientifiques*, III (1915), 255–281.

"How to Take a Ratio out of a Ratio" is printed with a French translation, a commentary, and additional notes by O. Riemann, in C. E. Ruelle, "Texte inédit de Domninus de Larissa sur l''arithmétique avec traduction et commentaire," in *Revue de philologie*, **7** (1883), 82–92, with an addendum by J. Dumontier explaining the mathematical import, pp. 92–94.

There is a useful summary by F. Hultsch, "Domninos," in Pauly-Wissowa, *Real-Encyclopädie*, V (1903), cols. 1521–1525.

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