Dem'yanenko, V. A.

On the orders of torsion points of elliptic curves. (Russian) Zbl 0539.14020

Zap. Nauchn. Semin. Leningr. Otd. Mat. Inst. Steklova 121, 47-57 (1983).

Let E be an elliptic curve defined over an algebraic number field K of degree n and class number h. The author concludes from the results of an earlier paper [cf. Zap. Nauchn. Semin. Leningr. Otd. Mat. Inst. Steklova 82, 5-28 (1973; Zbl 0449.14004)] that if E(K) contains all points of second order and one point of fourth order then the K-torsion is bounded by a constant depending only on n and h. Similarly [cf. also Mat. Zametki 14, 827-832 (1973; Zbl 0284.14013)], the author proves that the same holds, if E(K) contains the points of third order.

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MSC:

14H45	Special algebraic curves and curves of low genus
14H52	Elliptic curves
14K15	Arithmetic ground fields for abelian varieties
14G25	Global ground fields in algebraic geometry

Keywords:

torsion points of third order; bounded torsion; elliptic curve

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