Torsion Points on Certain Families of Elliptic Curves

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Abstract. Fix an elliptic curve $y^2 = x^3 + Ax + B$, satisfying $A, B \in \mathbb{Z}, A \geq |B| > 0$. We prove that the $\mathbb{Q}$-torsion subgroup is one of $(0), \mathbb{Z}/3\mathbb{Z}, \mathbb{Z}/9\mathbb{Z}$. Related numerical calculations are discussed.