

Present neatly. Justify for full credit. No Calculators.

Name _____ Score _____ ~10 minutes / A

Find the coordinates of the point in the first quadrant at which the tangent line to the curve $x^3 - xy + y^3 = 0$ is parallel to the x -axis.

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Name _____ Score _____ ~10 minutes / F

Prove that if P and Q are two distinct points on the rotated ellipse $x^2 + xy + y^2 = 4$ such that P , Q , and the origin are collinear, then the tangent lines to the ellipse at P and Q are parallel.