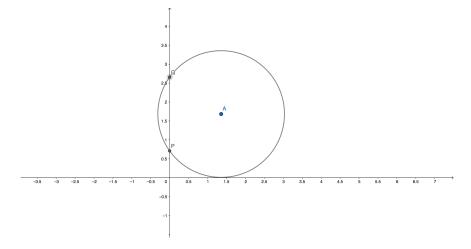
## **PROBLEM** # 663

Posted on: 30 Oct

**Due on**: 6 Nov

A variable circle  $\Gamma$  in the xy-plane is tangent to the x-axis and meets the y-axis at the points P and Q. If the circle varies in such a way that the length of the segment PQ is always 2, show that the center A of  $\Gamma$  lies on a hyperbola, and find the equation of this hyperbola.



The problem of the week can also be found online here:

