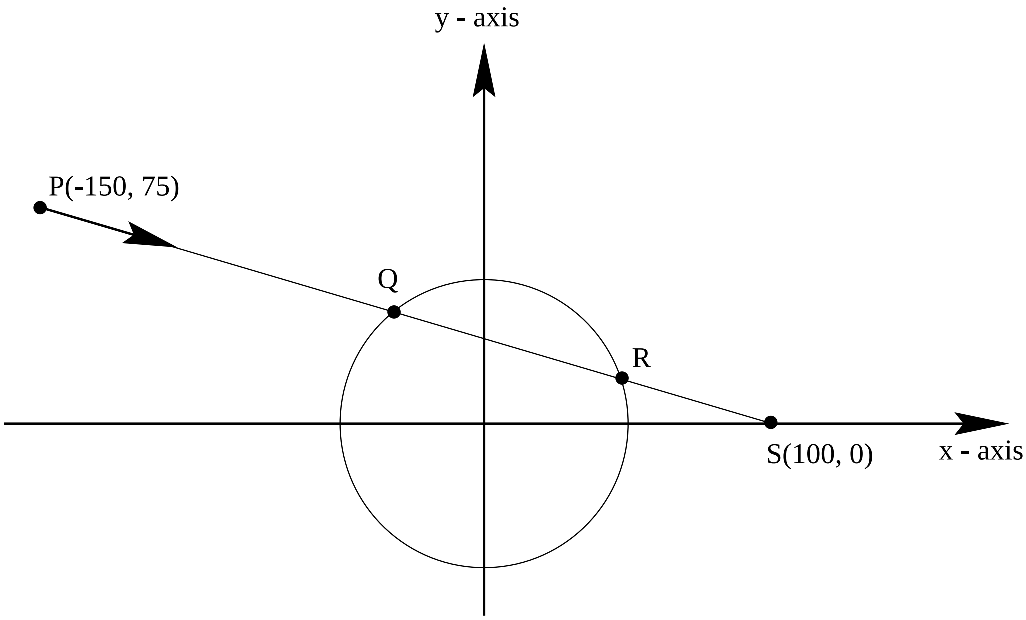
Name______________________________ **Student Id:**______________________________

Math 120, Section A **Quiz 2** **9 October 1997**

Instructions: You have 30 minutes for this quiz. Show all of your work.

Problem Description: An object moves at a constant rate of $10\frac{\text{ft}}{\text{sec}}$. It's Path is linear from P to S. At $t = 0\text{sec}$ it leaves P. The object crosses a circular boundary. The circle has radius, $r = 50\text{ft}$, and it is centered at the origin.



1. (10) Where does the object first enter the circular boundary? That is, what is the coordinate pair for the point Q?

2. (5) When is the object at the point Q?

3. (5) How long is the object *inside* the circular boundary?

4. (10) When is the object *closest* to the origin?