

**Quiz 4      Calculus 3      10/31/2007**

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Give parametric equations  $x(t)$ ,  $y(t)$ , and  $z(t)$ , along with bounds for  $t$ , for the line segment from  $(1,3,0)$  to  $(5,10,4)$ , which is the path a very scary witch flies along on her broom.

2. Give parametric equations  $x(t)$  and  $y(t)$  and bounds for  $t$  for the left half of a circle with radius 5, centered at the origin, and traversed counterclockwise.