

**Quiz 3      Calculus 3      10/31/17**

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

1. A black cat runs along a line segment from  $(3, -4)$  to  $(1, -3)$ . Give equations  $x(t)$ ,  $y(t)$  and bounds for  $t$  to parametrize this path.

2. A really scary bat is flying in circles 10 feet above the ground. Give parametric equations  $x(t)$ ,  $y(t)$ ,  $z(t)$  and bounds for  $t$  that produce a circle with radius 5 feet centered at  $(0,0,10)$  and traveling two complete times around the circle.