Quiz 3

Math 53, section 213

September 22, 2014

1. Find parametric equations for the tangent line to the curve given by parametric equations

$$x = 1 + 2\sqrt{t}, y = t^3 - t, z = t^3 + t$$

at the point $(3, 0, 2)$.

2. Find the limit, if it exists, or show that the limit does not exist:

$$\lim_{(x,y)\to(0,0)} \frac{x^4 - 4y^2}{x^2 + 2y^2}.$$