

Math 210 Quiz 3 / Monday, September 15, 2008 / David Dumas

(1) Convert from rectangular to spherical coordinates:  $(3, 3, 0)$

(2) The following space curve traces out a straight line in  $\mathbf{R}^3$ :

$$\mathbf{r}(t) = \langle 3t^3, 2 - t^3, -4t^3 \rangle$$

Find a standard vector parameterization of the same line, of the form  $\mathbf{L}(t) = P_0 + t\mathbf{v}$ .