

MATH 251: Quiz 2
February 12, 2015

Name: _____ Sec: _____

Note: Question 2 is on the back.

1. Given the curve

$$\mathbf{r}_1(t) = \langle 8 \cos(t), 6t, 8 \sin(t) \rangle,$$

- (a) Calculate the length of the curve from $t = 0$ to $t = \pi$.
- (b) Find an arc-length parametrization for this curve.

2. Find the equation of a plane that is parallel to $x + 3y + z = 0$ and goes through the point $(2, 3, 4)$.