

MATH 1930 Sec 092
HONORS CALCULUS II
QUIZ 5
March 26, 2013

Name (Last, First) Key

1. Find a parametrization for the line with endpoints $(-1, -3)$ and $(4, 1)$.

$$m = \frac{1 - (-3)}{4 - (-1)} = \frac{4}{5}$$

$$\begin{array}{l} x = -1 + t \\ y = -3 + \frac{4}{5}t \end{array} \quad 0 \leq t \leq 5$$

2. Find the Cartesian coordinates of the following point

$$(\sqrt{2}, \pi/4)$$

$$r = \sqrt{2} \quad \theta = \frac{\pi}{4}$$

$$x = r \cos \theta = \sqrt{2} \cos \frac{\pi}{4} = \sqrt{2} \cdot \frac{1}{\sqrt{2}} = 1$$

$$y = r \sin \theta = \sqrt{2} \sin \frac{\pi}{4} = \sqrt{2} \cdot \frac{1}{\sqrt{2}} = 1$$

$$(1, 1)$$