

18.022 Recitation Quiz
6 October 2014

1. Give a rough sketch of the image of the path $\mathbf{x}(t) = (e^t, \sqrt{t})$.

2. Consider the unit circle centered at $(0, 1)$ and the parabola $y = 5x^2$. Find the arclength of the portion of the parabola which is contained inside the circle. Feel free to leave your answer as an unevaluated definite integral (but no variables allowed, except dummy variables).

