**Name**: _____ **Section:** _____

Clear your desk of everything except pens, pencils and erasers. **Show all your work.**
If you have a question raise your hand and I will come to you.

1. (5 points) Find the length of the curve given by $y = \frac{4\sqrt{2}}{3}x^{3/2} - 1$ for $0 \leq x \leq 1$
   (Recall that $L = \int_a^b \sqrt{1 + [f'(x)]^2}dx$)

2. (5 points) Find the equation in $x$ and $y$ for the line tangent to the curve given parametrically by
   $x = 10\sin 2t, \quad y = 10\cos 2t$
   at the point on the curve associated with $t = \frac{\pi}{8}$.