1. (10) Plot and label these points, which are given in polar coordinates \((r, \theta)\).

A. \((4, \pi)\)  
B. \((6, 0)\)  
C. \((-4, \pi/2)\)  
D. \((2, -\pi/3)\)  
E. \((3, \pi/4)\)

2. (10) Find the length of the curve \(y = \sin(x)\) from \(x = 0\) to \(x = \pi\). Give an approximate answer to at least two decimal places.
3. The region shown below is bounded by $y = x^2$, $y = 1$, and $y = 4$. Find its area exactly.

4. Make an accurate sketch of the parametric curve

\[ x = 2 \sin(t) \cos(t), \quad y = 5 \cos(t), \quad t \in [-\pi, \pi] \]
5. The region bounded by $y = x^{1/4}$, $x = 9$, and the $x$ axis is revolved around the $x$ axis to form a solid. Find the exact volume of that solid.