QUIZ 17

1. (5 points)
   a. Find the volume of the region which is bounded by $y = 5x - x^2$ and $y = 0$ when it is rotated about the y-axis.

   b. Explain why using the slicing (or cross-section) method would fail in this situation.

2. (5 points) Find the arc length of the curve $y = 2x - 5$ on $-1 \leq x \leq 3$.
   a. Use the arc length formula/integral to compute this value.

   b. Use the distance formula to compute this value.

   c. Why should the two answers from part (a) and (b) be the same?