

Name: \_\_\_\_\_

**Quiz #6** (November 4<sup>th</sup>, 2008)

Kelly's Sub Shop needs to buy 100,000 paper wrappers each year. She can purchase these wrappers for \$0.10 each and it costs her \$0.01 (on average) to store a wrapper for a year. In addition, her supplier charges her \$5 each time she makes an order.

1. What is Kelly's annual cost function?  $C(x) =$  \_\_\_\_\_

2. Sketch a graph of Kelly's cost function for  $1,000 \leq x \leq 100,000$ .

3. Determine Kelly's ideal order size. \_\_\_\_\_

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