Quiz #4.
ECON 310 – Fall 2006.

Name: A. Key

Multiple Choice (3 points each):

1) The value of Average Fixed Costs of Production  
   c. is equal to the difference between Average Total Costs and Average Variable Costs (that is,  $AFC(q) = ATC(q) - AVC(q)$).

2) In a perfectly competitive market  
   d. there are many buyers and many sellers.

Additional Question:

1) Consider a profit maximizing firm operating in a competitive market in the short run. For this firm the minimum value of Average Variable Costs is $AVC_{\text{min}} = 8.95$ and the minimum value of Average Total Costs is $ATC_{\text{min}} = 12.60$.
   a. If the price in this market is $p = 7.50$, how much output would this firm want to produce? Explain. (2 points)

   Since $7.50 = p < AVC_{\text{min}} = 8.95$, it follows that there is no positive level of output for which $pq - VC(q) = q[p - AVC(q)]$ is positive. Therefore, the firm maximizes profit by “shutting down” and producing zero units of output in the short run (that is, $q^* = 0$).

   b. If the price in this market is $p = 14.25$, is this firm able to earn a positive profit? Explain. (2 points)

   Since $14.25 = p > ATC_{\text{min}} = 12.60$, it follows that there are positive levels of output for which $pq - C(q) = q[p - ATC(q)]$ is positive. Thus, the firm is able to earn a positive profit (and further, profit is maximized by producing $q^* > 0$ for which $MC(q^*) = p = 14.25$).