Name: _____ **Math 1030 Quiz #3** (July 17th, 2013)

1. After some research we found that our demand price function is $p_d(q) = -1.23q + 45$ (dollars per item). In addition, our fixed costs are \$90 and our variable costs are \$6.78 per item.

   (a) Revenue: $R(q) =$ _____ Cost: $C(q) =$ _____

   (b) Find both break even points. Round q to 3 decimal places. $q =$ _____

   (c) $MP(25) =$ _____

   (d) Are we making a profit or losing money when we sell $q = 25$ items? Profit / Loss

2. All we know is that $R(20) = \$100$ and $MR(20) = \$5$. Compute $R(q)$ at the following quantities. Circle "Exact" if the answer is exact or "Approximate" if the answer is an approximation using the marginal function.

   (a) $R(18) =$ _____ Exact / Approximate

   (b) $R(19) =$ _____ Exact / Approximate

   (c) $R(21) =$ _____ Exact / Approximate

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