Quiz 11

1. The psych students $A$, $B$, and $C$ submit bids $a = 6$, $b = 4$, $c = 5$ for their advisors outdated Weschler IQ test.

   (a) Suppose $A$ is the winning bidder. Find an equitable compensation arrangement. (3 pts)

   $q = \underline{\hspace{2cm}} \quad x_B = \underline{\hspace{2cm}} \quad x_C = \underline{\hspace{2cm}}$

   (b) Now suppose $C$ is the winning bidder. The payouts are $x_A = 2$, $x_B = 1$

   What does
   
   i. $A$ think $A$ gets? (1 pt)
   
   ii. $A$ think $C$ gets? (1 pt)
   
   iii. $C$ think $C$ gets? (1 pt)
   
   iv. Circle which players have envy: $A \quad B \quad C$ (1 pt)

2. Now $A$ and $B$ submits bids $a, b$ which are some positive real numbers, NOT the number from Question 1. If $A$ is the winning bidder, what is the equitable payout to $B$ that $A$ should make? Show work. (3 pts)

   bids: $a, b$ unknown real numbers. $A$ wins. Find $q, x_B$


   $x_B = \underline{\hspace{2cm}}$

3. Extra credit (+1 pt) Prove that the payout you found in Question 2 is fair to $B$ if and only if $A$ is a highest bidder. Write on the back!
PLEASE WRITE YOUR NAME ON THE BOTTOM OF THIS PAGE