Economics of Asymmetric Information:  
Suggested Answers to Homework 1

**Question 1**
1. a. Driver can make $270 from the short trips or $300 from the long trips.
   1. b. Driver can make $405 from the short trips or $270 from the long trips.

**Question 2 from book**
(2; 1; 2) is not efficient.

**Question 4 from book**
4. a.
   • Jay gets everything
   • Christine gets A; Jay gets B, C, D, E
   • Christine gets A, B; Jay gets C, D, E
   • Christine gets A, B, C; Jay gets D, E
   • Christine gets A, B, C, D; Jay gets E
   • Christine gets everything

4. b.
   • Christy-Ann gets everything
   • Christine gets A; Christy-Ann gets B, C, D, E
   • Christine gets A, B; Christy-Ann gets C, D, E
   • Christine gets A, B, C; Christy-Ann gets D, E
   • Christine gets A, B, C, D; Christy-Ann gets E
   • Christine gets everything
4. c.
- Christine gets $A$; Christy-Ann gets $B, C, D$; Jay gets $E$
- Christine gets $A, B$; Christy-Ann gets $C, D$; Jay gets $E$
- Christine gets $A, B, C$; Christy-Ann gets $D$; Jay gets $E$
- Christine gets $A$; Christy-Ann gets $B, C$; Jay gets $E, D$
- Christine gets $A$; Christy-Ann gets $B$; Jay gets $E, D, C$

**Question 6 from book**

Before adding the outcome $(206, 172)$, $F, K, M$ are efficient.

After adding the outcome $(206, 172)$, this new outcome becomes the only efficient one.

**Question 3**

3. a. For cars of type $q = 1$, they can be sold for a price in between $10,000 and $15,000.
   For cars of type $q = .6$, they can be sold for a price in between $6,000 and $9,000.
   For cars of type $q = 0$, the seller is indifferent between giving the cars away for free or not and the buyer is indifferent between taking the car or not.

3. b. Given the distribution of cars, the buyer would find the expected level of quality to be $:.58$. At this expected level of quality (and the risk neutrality of the buyer) the buyer’s value would be $8,700.
   The buyer is smart enough to know that if he offers the seller a price below $10,000, the seller will not want to sell the type $q = 1$ cars.
   Given that the seller will not sell cars for which $q = 1$, the buyer finds the expected quality level of the remaining cars to be $.53$. For this level of expected quality the buy has a value of $8,000.
   Thus the $q = .6, 0$ cars can be sold for a price between $6,000 and $8,000.