Practical Class XIII – Advanced Microeconomics

1. Suppose that several greyhound-breeders are selling their puppies in a fair. They can sell selected pure-breed dogs, unselected pure-breed dogs and mutts.

Selected pure-breeds are always descendent from pure-breeds dogs that are carefully selected to reproduce over several generations. Their probability of being extremely fast when adults is **8%**. This type is quite rare so only **10%** of the dogs are of this type.

Unselected pure-breeds are also always descendent from greyhounds, however they might not be the most appropriate ones in their litters for reproduction. Their probability of being extremely fast when adults is **4%.** This type is more common, **40%** of the dogs are of this type.

Mutts (or mixed-breed) are Sighthound dogs that are not pure-breed greyhounds. They descend from a mixture of similar breeds such that it is not possible to distinguish them from greyhounds when they are puppies. Their probability of being extremely fast when adults is **0.5%**. This type is the most common, so **50%** of the dogs are of this type.

The fair is restricted for professional racing-dog raisers. This professionals raise the dogs for 1 year and then resell them to professional racing-dog teams if the dog is extremely fast, or to families if otherwise. If they sell the dogs to racing-dog teams they get **3550€** profit per dog, and if they sell them to families only get **50€.**

If breeders do not sell the puppies, they can raise them by themselves. However, as they are less efficient in raising and negotiating adult dogs they only get **2050€** profit per dog if it is extremely fast, but still get the same if they sell them to families.

    a) If it was possible to distinguish each dog type. What is the maximum that raisers are willing to pay? Are breeders interested in selling at that price?

    b) If it was not possible to distinguish each type of dog, how much raisers are willing to pay? Are breeders interested in selling at that price?

    c) What is the equilibrium price and which type of dogs will be for sale? Is there any relation with the "Akerlof's market for lemons"?

Suppose now that pure breeders (Selected and non-selected) can decide to get a pedigree certificate from the kennel club.

    d) What will happen to the market if the certificate is for free?

    e) If the certificate has a cost, does your answer change? Justify, and state every possibility.