Quiz Questions – Mathematical Economics

**IMPORTANT: If the quiz takes place during an online class hour, then your quiz questions will be slightly different regarding the numerical values, albeit essentially the same.**

1) Assume that you want to buy a house in the real estate market but the offers by the sellers are uncertain. The house prices (per m2) are over [5000TL, 9000TL] according to the PDF depicted below:



1. What is the height of the triangle above? (Hint: The triangle is the graph of a PDF.)
2. Suppose you will receive offers from two randomly chosen sellers. The first seller offers 7000TL per m2. What is the probability that you will get a higher offer from the second seller?
3. If you buy the cheapest house, what is the expected price that you will pay?

2) Suppose that is a random variable uniformly distributed over .

a) Compute , the probability that knowing that .

b) Find the expected value of given that That is,