***Question 3:***

***a.***

proof:

η of D is c-Lipschitz with respect to the Euclidean distance.

therefore, by definition: .

Hence, it’s sufficing to show that This is clear since

***b.***

***Question 4:***

***a.***

we can represent each rabbit as vector in since we only consider the parameters age and weight. it’s also known rabbits are limited to live 48 month and weigh 4kg, hence *.*

we would like to predict if rabbit is black or white so we can let or where means black rabbit.

***b.***

***c.***

***d.***

***e.***

***f.***

***g.***