2.

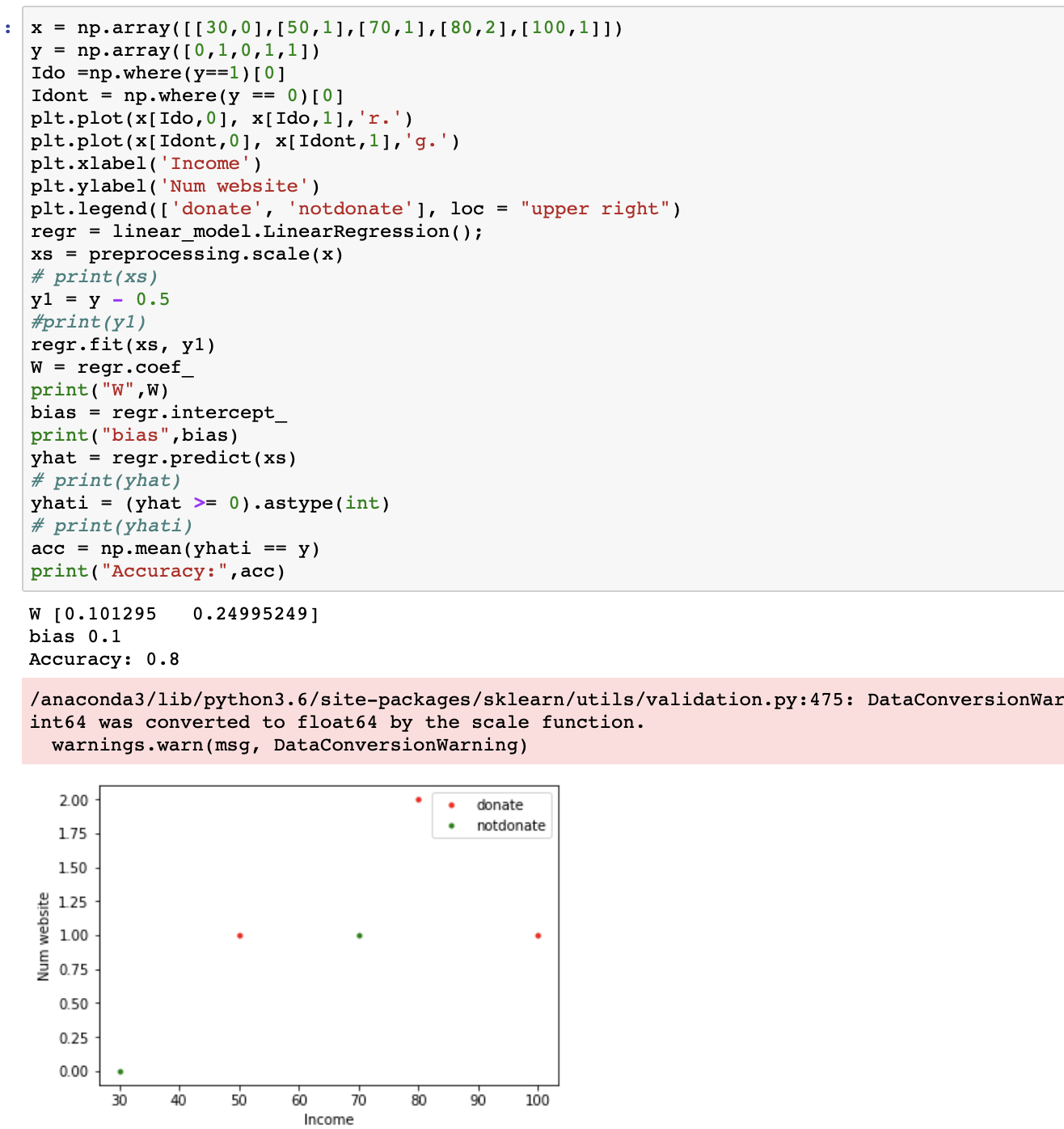
(1)

(2)

(3), so

}

3.

(1) 

(2)

if P is the smallest, then z should be the smallest, so sample 0 make it least.

(3)

In part(b), it doesn’t change anything, because in that way, new z will be multiple of the previous z , but is positive, so sign of new z is the same with the old z, so they do not change.

In part(c), P will become larger than previous which means in this calculation, it shows the more people are willing to donate money.

4.

(1) z = -0.5

(2) p = 0.5, so z = 0, so hours = 50