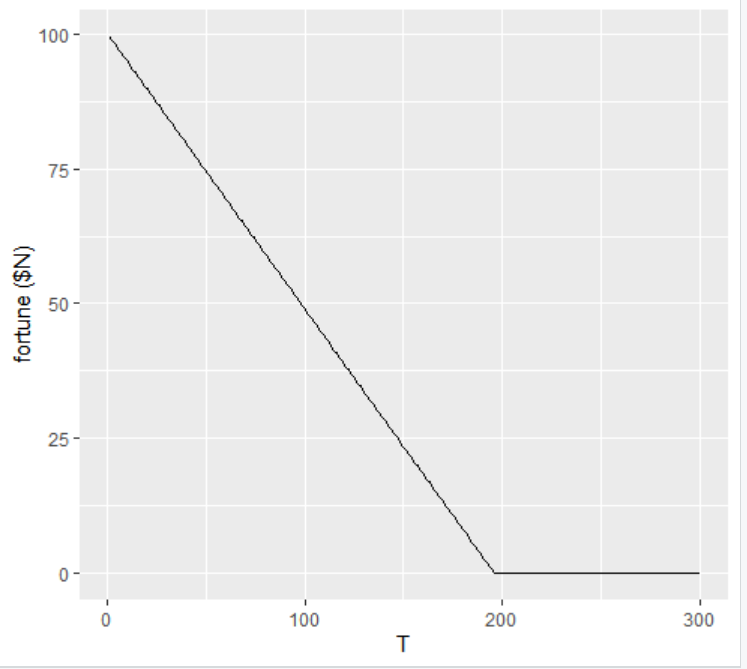
# Report for Q3 and Q4

## Q3

### Q3(1)

The probability that he do not run ot of money after 100,1,000,10,000 , and 100,000 times are 1, 6.52956269890831e-170, 0, 0 respectively.  
(Some number are too small to be stored as floating number, so some results are rounded to 1 or 0)

### Q3(2)

 **My observation**: The more he gamble, the less money he will have on average.(i.e. the money he have is a decreasing liner function to the gamble times until he run out of money)

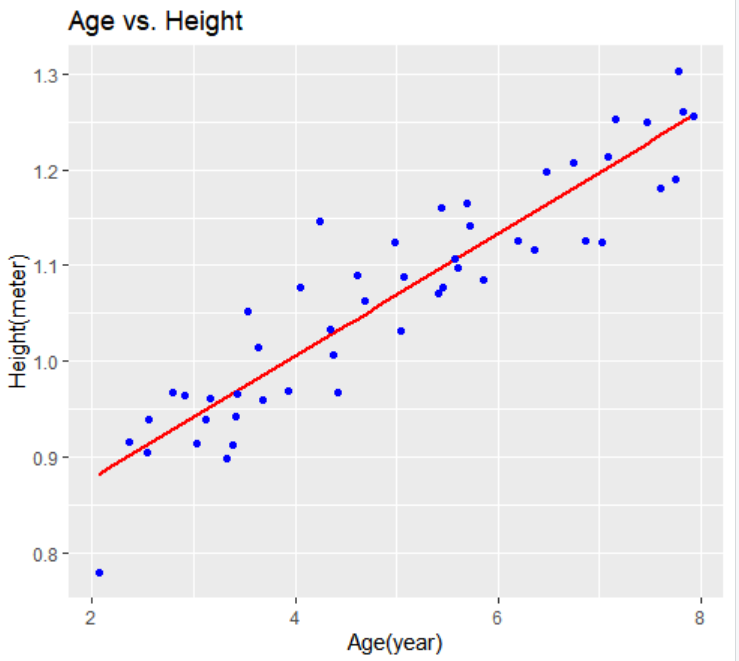
## Q4

### Q4(1)

x denotes age, y denotes height.

So, applying the least square algorithm, the regression line is

### Q4(2)



### Q4(3)

the model we get in Q4(2) is .  
So, for a 3.5-yr-old boy, his expected height is meters  
and for an 8-yr-old boy, it’s meters