

# MA 576 HW 2

*Benjamin Draves*

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(a)

```
#load necessary packages
library(ggplot2)

#define X
X = 1:100

#define lamda/loglambda vectors
lam = exp(1 - 0.04*X)
loglam = log(lam)

#get Y sample
Y = sapply(lam, function(x) rpois(1, x))

#plot relationship
dat = data.frame(cbind(X,Y))
p<- ggplot(dat, aes(X, Y)) +
  geom_point() +
  labs(x = "X", y = "Y")
p
```

