

# binom\_plot.R

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2023-11-10

```
# binom_plot.R
# Plot probabilities for the binomial distribution

# Load necessary libraries
library(ggplot2)

# Binomial parameters here
l <- 10
p <- 0.1

# Binomial distribution function
y <- 0:l
proby <- dbinom(y,l,p)

# Make data frame for ggplot2
bindata <- as.data.frame(cbind(y,proby))

# Print data
bindata

##      y      proby
## 1  0 0.3486784401
## 2  1 0.3874204890
## 3  2 0.1937102445
## 4  3 0.0573956280
## 5  4 0.0111602610
## 6  5 0.0014880348
## 7  6 0.0001377810
## 8  7 0.0000087480
## 9  8 0.0000003645
## 10 9 0.0000000090
## 11 10 0.0000000001

# Generate plot showing frequencies
ggplot(bindata,aes(y,proby))+
  geom_bar(stat="identity",width=0.05,fill="red")+
  geom_point(color="red",size=3)+
  ggtitle("Binomial distribution, l = 10 and p = 0.5")
```

