Problem Set 8 – MATH392

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Simulator

```
# set params
b0 <- 2.5
b1 <- 1.9
b2 <- 8.1
sigma <- 4

beta<- matrix(c(b0, b1, b2), nrow = 3, ncol = 1)

# complete specification
n <- 1000
epsilon <- matrix(rnorm(n, 0, sigma), nrow = n, ncol = 1)
x <-matrix(c(rep(1, n), x_1 <- rexp(n, .2), x_2 <- rexp(n, .1)), nrow = n, ncol = 3)

# simulate ys
y_simulate <- function(x){
  y <- x%*%beta + epsilon
}

y_sim <- y_simulate(x)
```

Sampling Distribution

```
#Beta_1
```