

BIOST505DataGen

Max Bi

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```
set.seed(505)
png("ex1.png", width=500, height=200, units="mm", res=300, pointsize = 14)
par(mfrow = c(1, 2))

n = 100
x = runif(n, 0, 100)
y_cloud = -1.5 * x + rnorm(n, 0, 100)
plot(x, y_cloud, xlab = "x", ylab = "y", main = "Plot 1")

y_lin = -1.5 * x + rnorm(n, 0, 5)
plot(x, y_lin, xlab = "x", ylab = "y", main = "Plot 2")

dev.off()

## pdf
## 2

mod1 = lm(y_cloud ~ x)
png("resid_demo.png", width=500, height=200, units="mm", res=300, pointsize = 14)
plot(x, y_cloud, xlab = "x", ylab = "y", main = "Plot 1")
abline(mod1, col = "red")
dev.off()

## pdf
## 2
```