

MA429 Summative 1 Graphs

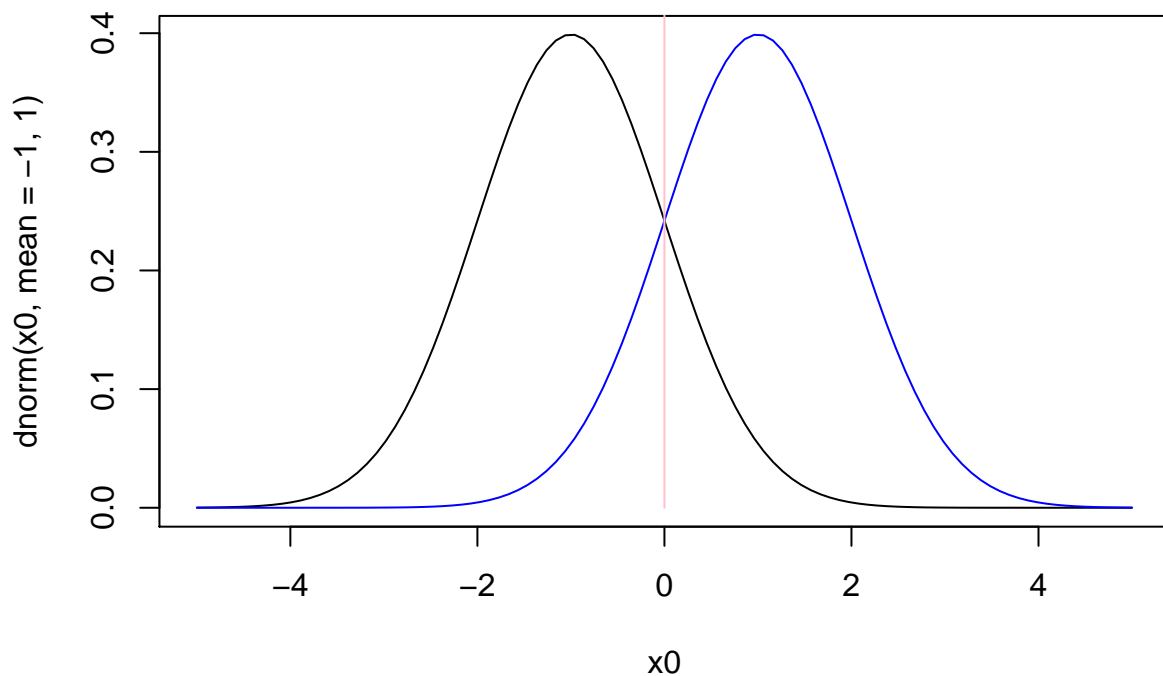
Plot 1:

```
x0 = seq(-5,5,length = 100)
plot(x0,dnorm(x0, mean = -1, 1), type='l', main = "Bayes Decision Boundary when x0 = 0 ")

lines(x0, dnorm(x0,mean =1,1), col = 'blue')

x2 = rep(0,2)
y2 = c(0,1)
lines(x2,y2, col = 'pink')
```

Bayes Decision Boundary when $x_0 = 0$



Plot

2:

```
x0 = seq(-5,5,length = 100)

plot(x0, (1/11)*dnorm(x0, mean = -1, 1), type = 'l', ylim = c(0,0.4), main = "Bayes Decision Boundary w

lines(x0, (10/11)*dnorm(x0, mean = 1, 1), type = 'l', col = 'blue')

x2 = rep(-1.1532, 2)
y2 = seq(0,1,length=2)
lines(x2,y2, col = 'pink')
```

Bayes Decision Boundary when $x_0 = -1.1532$ approximately

