

Homework 6 simulation

```
> x1<-rexp(10000,1)
> x2<-rexp(10000,1)
> x3<-rexp(10000,1)
> A<-cbind(x1,x2,x3)
> y<-apply(A,1,min)
> head(cbind(A,y))
      x1      x2      x3      y
[1,] 1.11495497 1.0671382 0.2673514 0.26735138
[2,] 0.69812915 0.2578549 0.9315431 0.25785488
[3,] 0.44586222 1.3080187 0.5450336 0.44586222
[4,] 0.48846898 0.4143498 0.7275768 0.41434985
[5,] 0.08924559 0.1999302 0.9227934 0.08924559
[6,] 1.70254686 1.2048391 0.3006398 0.30063983
> cbind(mean(x1),mean(x2),mean(x3),mean(y))
      [,1]      [,2]      [,3]      [,4]
[1,] 0.9959694 1.02891 0.9888576 0.3386708
> cbind(var(x1),var(x2),var(x3),var(y))
      [,1]      [,2]      [,3]      [,4]
[1,] 0.9786681 1.077013 0.9611813 0.1152496
> hist(x1, col=rgb(1,0,0,0.5),xlim=c(0,10),freq=F)
> hist(y, col=rgb(0,0,1,0.5), xlim=c(0,10), freq=F, add=T)
```

