

## C2.3

(i)

```
set.seed(12345)
X <- rnorm(10000)
set.seed(12345)
Y <- rexp(10000,rate=1)
p_1 <- sum((X+Y)>1)/10000
# qnorm(0.975)
N <- ((qnorm(0.975)*sqrt(var(X+Y>1))/0.1))^2
```

$P((X+Y)>1)=0.4672$  and  $N=95.6327543$ .

(ii)