數理統計自主學習報告

4-58

```
> paste("P(0<=Z<=1.2)")
[1] "P(0<=Z<=1.2)"
> pnorm(1.2,lower.tail = TRUE)-pnorm(0,lower.tail = TRUE)
[1] 0.3849303
> paste("P(-0.9<=Z<=0)")
[1] "P(-0.9<=Z<=0)"
> pnorm(0,lower.tail = TRUE)-pnorm(-0.9,lower.tail = TRUE)
[1] 0.3159399
> paste("P(0.3<=Z<=1.56)")
[1] "P(0.3<=Z<=1.56)"
> pnorm(1.56,lower.tail = TRUE)-pnorm(0.3,lower.tail = TRUE)
[1] 0.3227086
>
```

4-86

$y \sim gamma(1.5,4) \sim x^2(3)$

$w=y/2 \sim gamma(1.5,2) \sim x^2(3)$

```
> pgamma(3.5,shape=1.5,rate=1/4,lower.tail = TRUE)
[1] 0.3741245
> pgamma(1.75,shape=1.5,rate=1/2,lower.tail = TRUE)
[1] 0.3741245
>
>
```

兩值輸出結果相等

4-123

```
> qbeta(0.95,4,3,lower.tail = TRUE)
[1] 0.8468389
> round(qbeta(0.95,4,3,lower.tail = TRUE),5)
[1] 0.84684
>
```