```
> m <- 6
> n <- 7
> v1 <- 417.37
> v2 <- 1699.81
> Sp <- sqrt(((m-1)*v1+(n-1)*v2)/(n+m-2))
> error <-qt(0.975,df=11)*Sp*sqrt((1/m)+(1/n))
> X <- 308.88
> Y <- 161.26
> Left <- X-Y-error
> Right <- X-Y+error
> Left
[1] 106.697
> Right
[1] 188.543
```

```
> m <- 6
> n <- 7
> v1 <- 417.37
> v2 <- 1699.81
> Sp <- sqrt(((m-1)*v1+(n-1)*v2)/(n+m-2))
> error <-qt(0.995,df=11)*Sp*sqrt((1/m)+(1/n))
> X <- 308.88
> Y <- 161.26
> Left <- X-Y-error
> Right <- X-Y+error
> Left
[1] 89.87356
> Right
[1] 205.3664
```

```
> X <- 308.88
> Y <- 161.26
> m <- 6
> n <- 7
> v1 <- 417.37
> v2 <- 1699.81
> Sp <- sqrt(((m-1)*v1+(n-1)*v2)/(n+m-2))
> Tobs <- (X-Y)/(Sp*sqrt((1/m)+(1/n)))
> Tobs
[1] 7.939522
> pt(7.939522, df=11)
[1] 0.9999965
```

```
> Cold <- c(24.2, 25.4, 26.2, 22.6, 19.5, 25.8, 26.1, 21.9, 24.6)
> Hot <- c(23.1, 23.6, 26.5, 21.4, 19.1, 26.2, 24.5, 20.3, 24.8)
> Dif <- Cold-Hot
> D <- mean(Dif)
> Sd = sqrt((1/8)*(sum(Dif^2)-((sum(Dif)^2)/9)))
> Tobs=D/(Sd/sqrt(9))
> Tobs
[1] 2.549751
> qt(0.975, df=8)
[1] 2.306004
> pt(-Tobs, df=8)
[1] 0.01709396
```