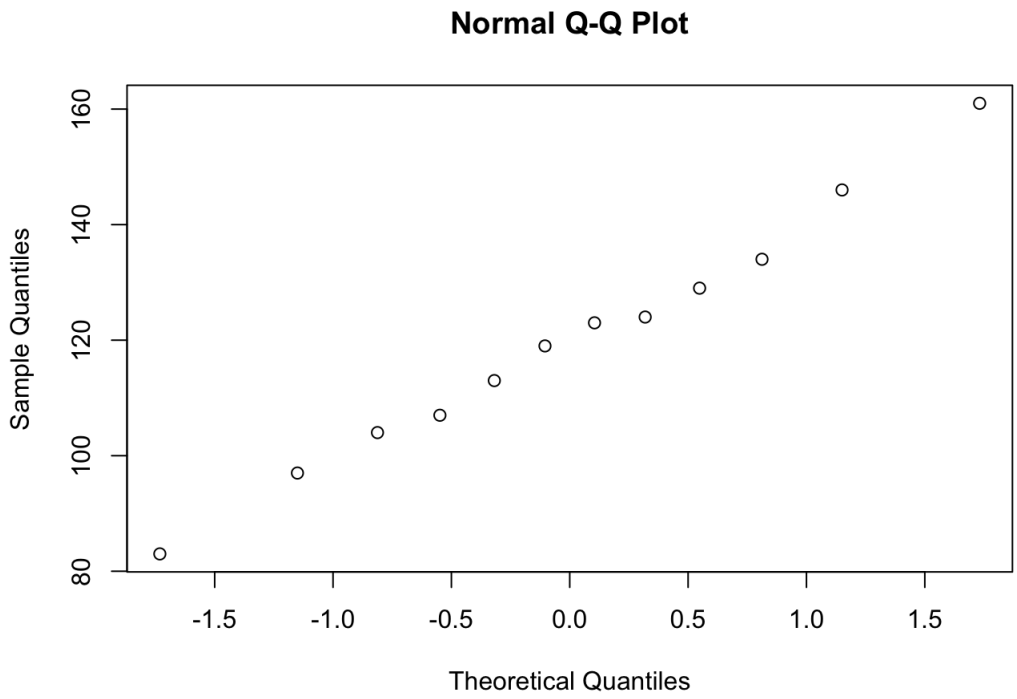
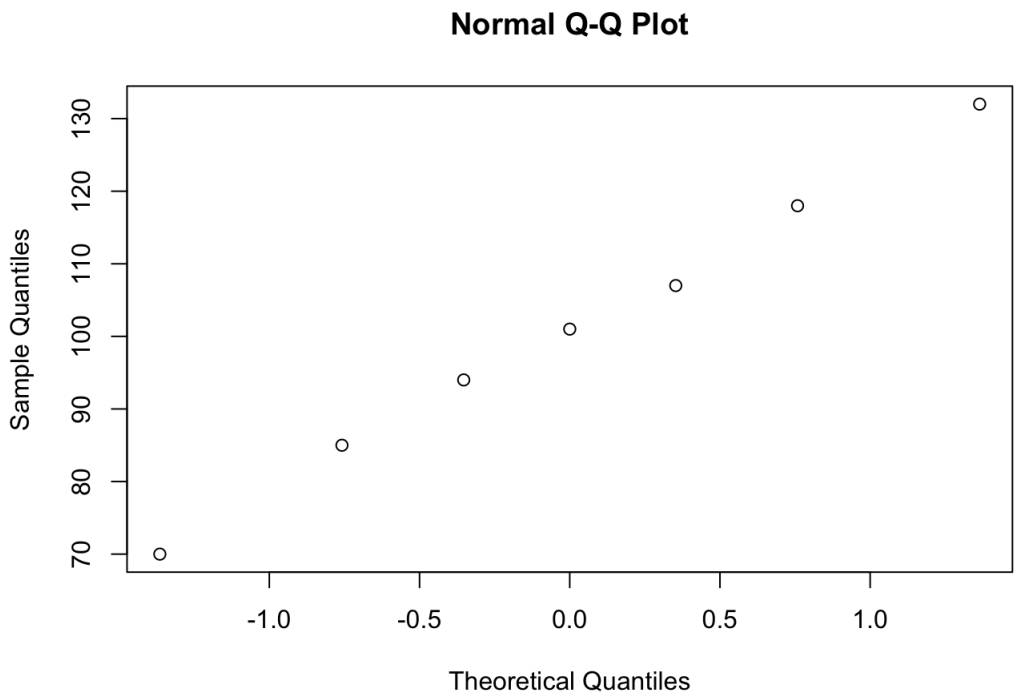
```r
# Your code here

# 1c
HighProtein = c(134, 146, 104, 119, 124, 161, 107, 83, 113, 129, 97, 123)
LowProtein = c(70, 118, 101, 85, 107, 132, 94)
t.test(HighProtein, LowProtein, alt = "two.sided", var.equal = F)
```

```
##
##  Welch Two Sample t-test
##
## data:  HighProtein and LowProtein
## t = 1.9107, df = 13.082, p-value = 0.07821
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -2.469073 40.469073
## sample estimates:
## mean of x mean of y
##       120       101
```

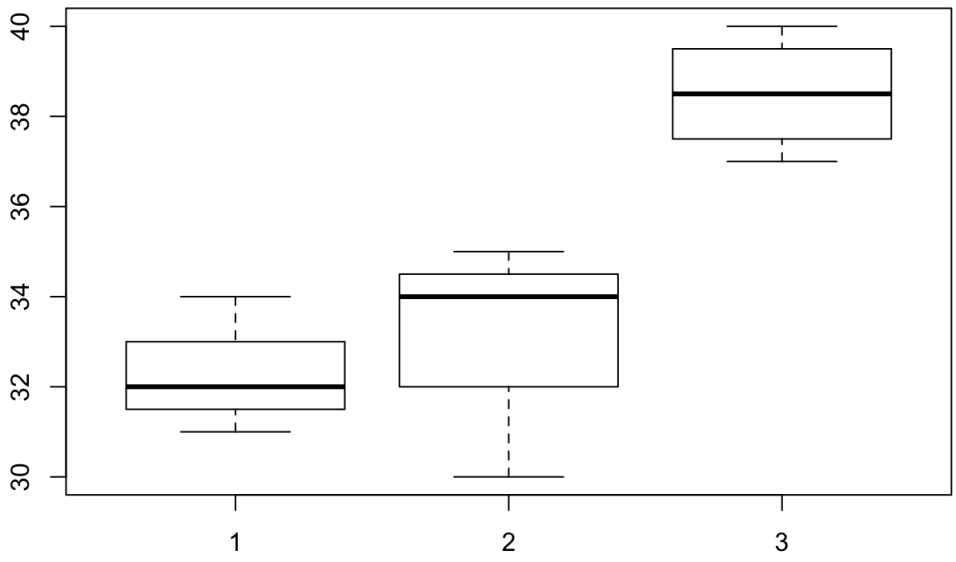
```r
qqnorm(HighProtein)
```



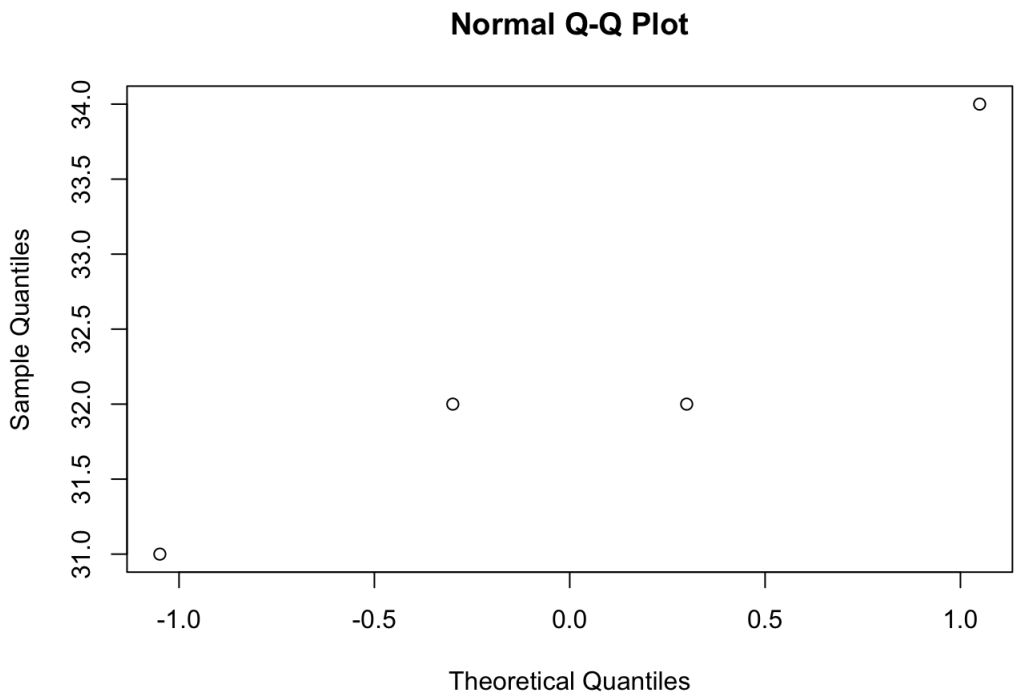

```r
qqnorm(LowProtein)
```



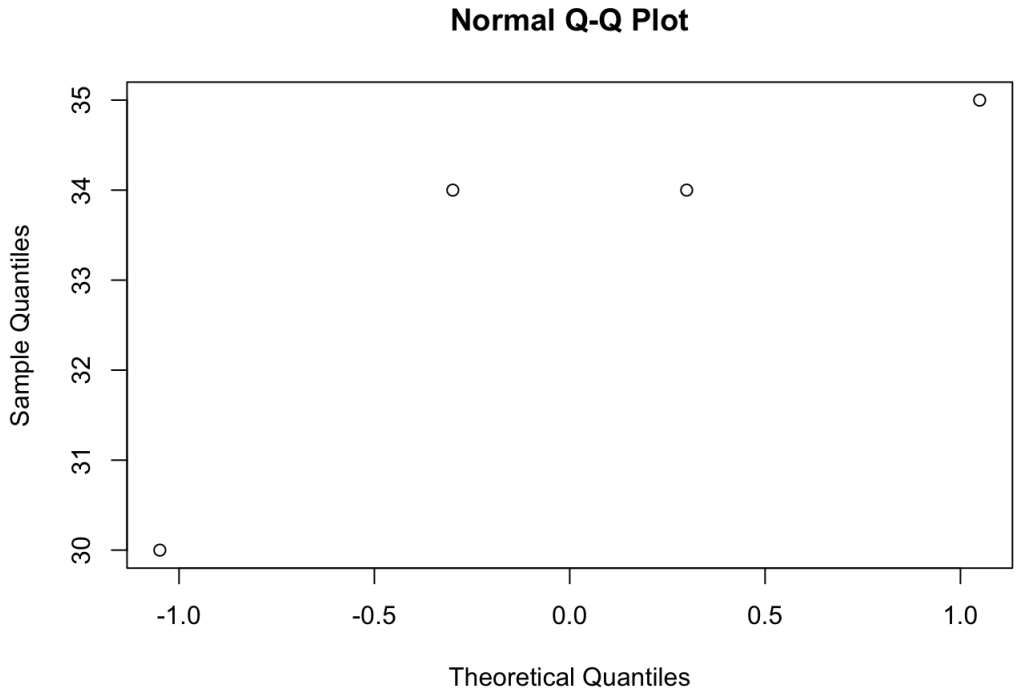

```r
# 2c
P1 = c(34, 32, 31, 32)
P2 = c(35, 34, 34, 30)
P3 = c(37, 39, 40, 38)
boxplot(P1, P2, P3)
```



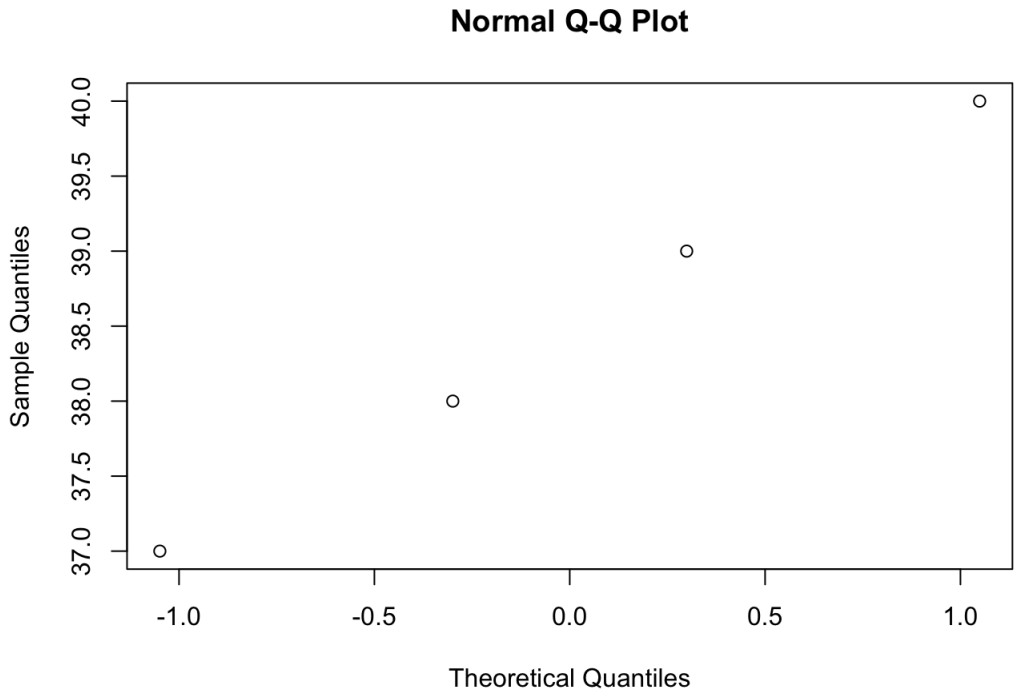

```r
qqnorm(P1)
```




```
qqnorm(P2)
```




```
qqnorm(P3)
```




```
shapiro.test(P1)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  P1
## W = 0.89495, p-value = 0.4064
```

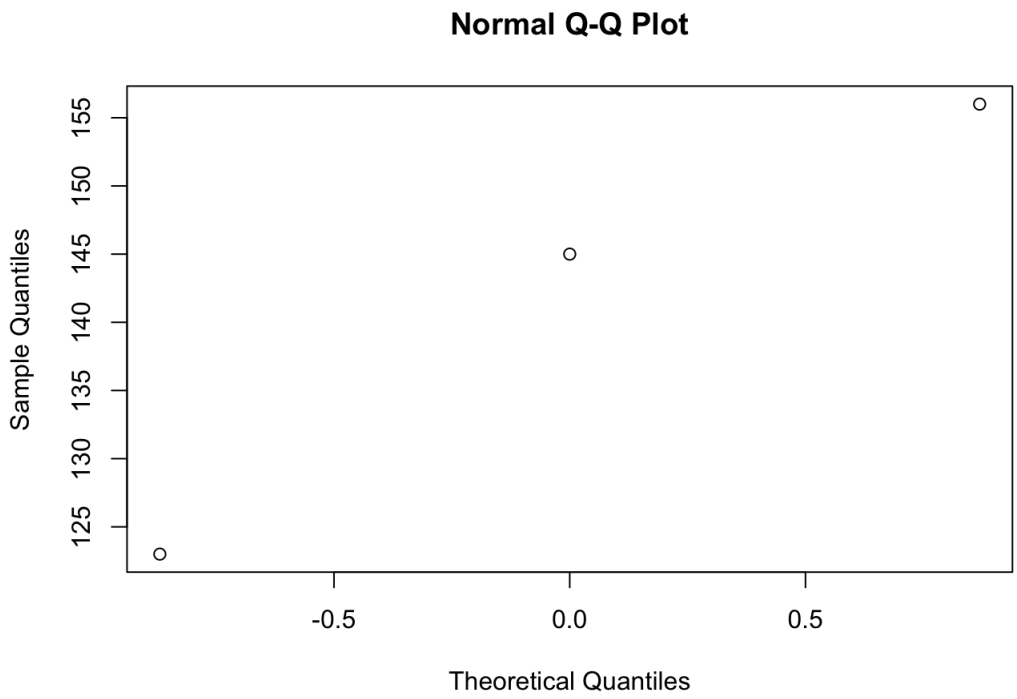
```
shapiro.test(P2)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  P2
## W = 0.80056, p-value = 0.1032
```

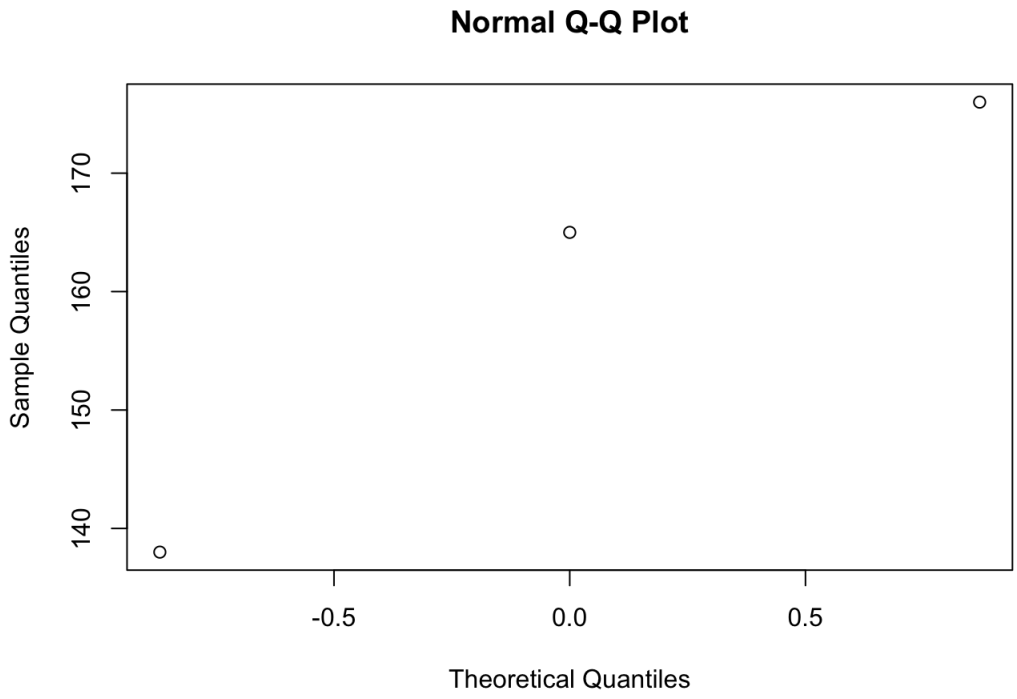
```
shapiro.test(P3)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  P3
## W = 0.99291, p-value = 0.9719
```

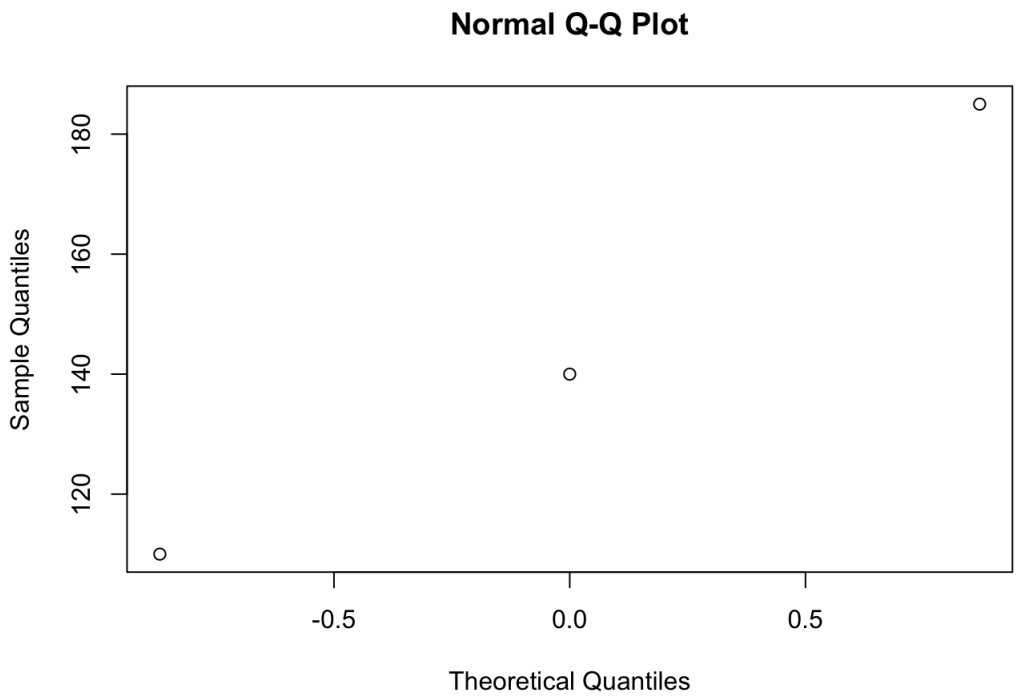
```
# 3c
x = c(123, 145, 156, 138, 165, 176, 110, 140, 185, 151, 167, 175)
S1 = c(123, 145, 156)
S2 = c(138, 165, 176)
S3 = c(110, 140, 185)
S4 = c(151, 167, 175)
qqnorm(S1)
```



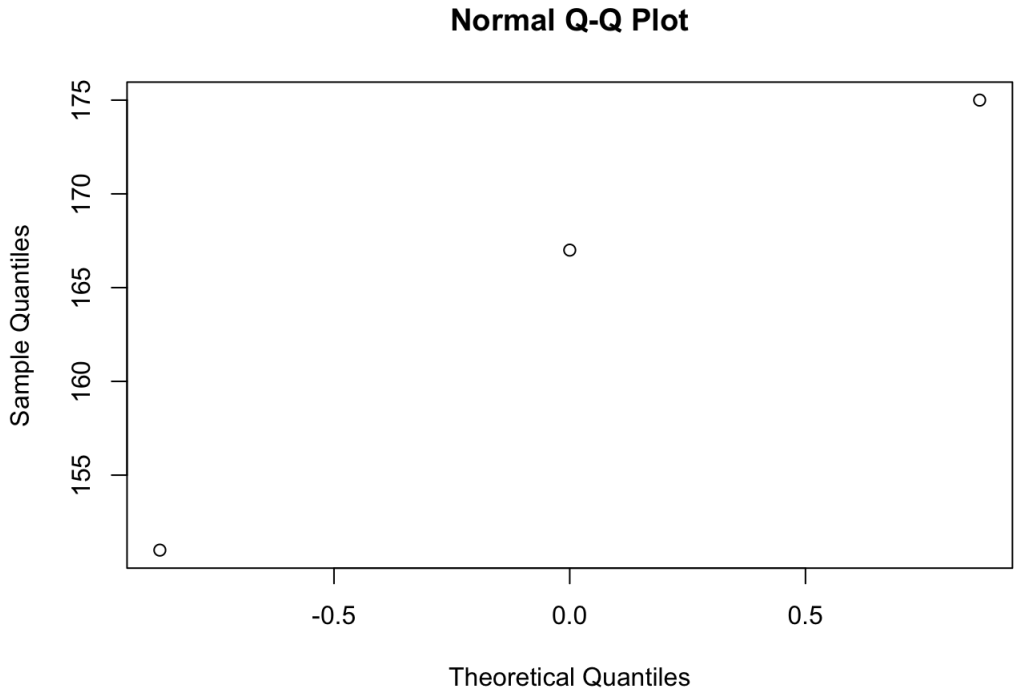

```
qqnorm(S2)
```




```
qqnorm(S3)
```


Normal Q-Q Plot
Sample Quantiles
120
140
160
180
-0.5
0.0
0.5
Theoretical Quantiles

```
qqnorm(S4)
```


Normal Q-Q Plot
Sample Quantiles
155
160
165
170
175
-0.5
0.0
0.5
Theoretical Quantiles