Statistics Week 2 R Homework Question 1.1

Having loaded the Statistics 1 data set into `R`, use `stem(us.temp, scale=4)` to produce a stem-and-leaf plot of the dataset `us.temp`, which gives the mean January temperatures for 60 U.S. metropolitan areas.

```
load('C:/.A - Uni/Year 1/Maths/Probability and Stats/Y1-TB2-STATS-R/stats1.RData')
stem(us.temp)
```

```
##
##   The decimal point is 1 digit(s) to the right of the |
##
##   -1 | 1
##   -0 | 755
##   -0 | 44444433333322222221111111
##    0 | 0000111112233444
##    0 | 66777899
##    1 | 2233
##    1 | 9
```

Use `R` to give a five number summary of the data.

```
fivenum(us.temp)
```

```
## [1] -11.1  -2.7  -0.5   4.1  19.4
```

By examining the data set directly, comment on any unusual pattern in the data and try to find a plausible explanation.

```
us.temp
```

```
##  [1] -11.1  -6.6  -5.0  -5.0  -4.4  -4.4  -4.4  -4.4  -4.4  -3.8  -3.3  -3.3
## [13]  -2.7  -2.7  -2.7  -2.7  -2.2  -2.2  -2.2  -1.6  -1.6  -1.6  -1.6  -1.1
## [25]  -1.1  -1.1  -1.1  -1.1  -1.1  -0.5  -0.5   0.0   0.0   0.0   0.0   0.5
## [37]   0.5   0.5   0.5   1.1   1.6   1.6   2.7   3.3   3.8   4.4   4.4   5.5
## [49]   5.5   7.2   7.2   7.2   7.7   8.8   9.4  11.6  12.2  12.7  12.7  19.4
```

The maximum value, 19.4^{o}C is considerably warm. This could be becuase the data was collected from a metropolitan area in the south of the US which typically experiences warmer temperatures in January.