PSQF 4143: Section 2 Supplemental
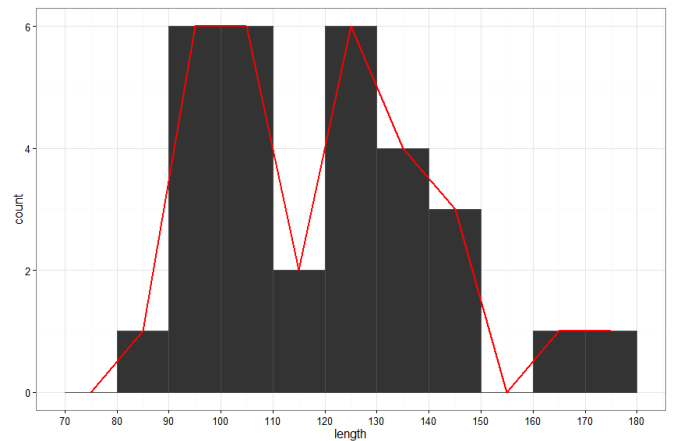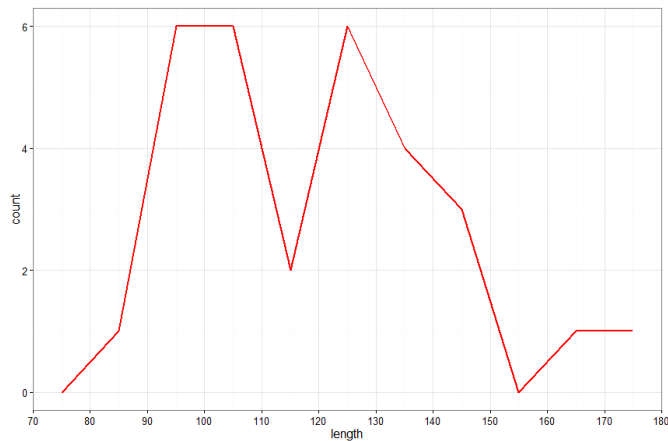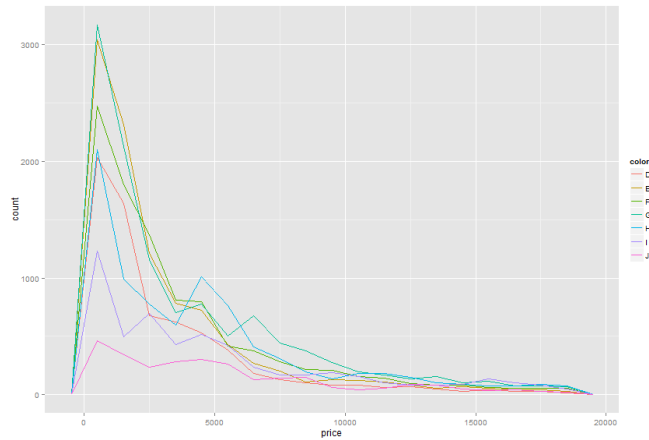
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Frequency Polygons

- Similar to a histogram, but the frequency are plotted above the midpoint of each interval.
- The midpoint is the middle of the interval taking into account the real limits.

  $- mid = X_{ll} + \frac{(X_{ul} - X_{ll})}{2}$

```
##            Var1 Freq midpoint
## 1     [80,90)     1     84.5
## 2    [90,100)     6     94.5
## 3   [100,110)     6    104.5
## 4   [110,120)     2    114.5
## 5   [120,130)     6    124.5
## 6   [130,140)     4    134.5
## 7   [140,150)     3    144.5
## 8   [150,160)     0    154.5
## 9   [160,170)     1    164.5
## 10  [170,180)     1    174.5
```

Stem and Leaf

- The leaf is the last digit of the number
- The stem is everything except for the last digit.

```
##
##   The decimal point is 1 digit(s) to the right of the |
##
##    8 | 6
##    9 | 257899
##   10 | 048899
##   11 | 03
##   12 | 001347
##   13 | 2226
##   14 | 013
##   15 |
##   16 | 2
##   17 | 0
```