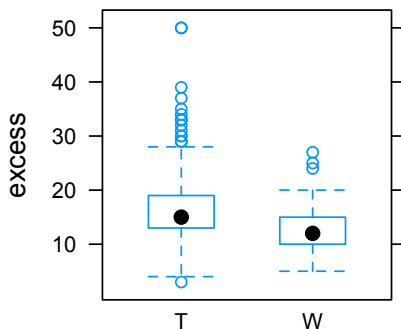


**Exer 3.21**

[A/AC122]

Using the data in the `speeders.csv` file, calculate the speed in excess of the posted speed limit. This will be the difference between the speed and limit variables.

The figure shows a side-by-side boxplot of the excess speed, broken down by whether a ticket or a warning was given.



Enter the R statements to compute the excess speed and produce the side-by-side boxplot:

From the boxplot, estimate by eye what fraction of the people who got tickets are going faster than  $\frac{3}{4}$  of the people who got warnings.

- A Only the outliers.
- B About half.
- C About one quarter.
- D Almost all.

Using computer commands, calculate exactly the 75th percentile of the excess speed of the people who got warnings.

10 12 13 14 15 16 17 18 20

Harder: What fraction of the people who got tickets are going faster than the 75 percentile speed of the people who got warnings?

.411 .433 .456 .486 .491