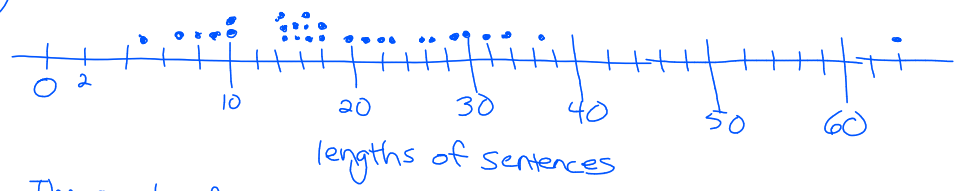


19-14

Enter data into L_1 / Do 1-Var stats to get \bar{x} and S_x .

a)



The graph of the # of words per sentence is skewed right. The median # of words is 16.5, and ranges from 5 to 64 words/sentence, with 64 looking like an outlier.

b) $\bar{x} = 20.5$ $S_x = 12$ $n = 28$
 $df = 27$

$$20.5 \pm 2.052 \left(\frac{12}{\sqrt{28}} \right)$$

t_{27}^* points to 2.052

$(15.85, 25.15)$

c) $n \geq 30$ or pop. is normal

$n = 28 < 30$
 Based on the graph of this sample (skewed right + outlier) I don't think it's safe to assume that the pop. is normal.
 Don't think the cond. are satisfactorily met.

d) $18.89 \pm 2.056 \left(\frac{8.6}{\sqrt{27}} \right)$

t_{26}^* points to 2.056

$(15.49, 22.29)$

Removing the outlier lowered the values of the interval.

19-15

a) varies ex: 29, 26, 2, 11, 8, 18, 0, 5, 40, 3

b) ↓

$$\begin{aligned} \bar{x} &= 14.2 \\ s_x &= 13.53 \\ n &= 10 \end{aligned}$$

$$14.2 \pm \overset{t_9^*}{\underline{1.833}} \left(\frac{13.54}{\sqrt{10}} \right)$$

(6.36, 22.04)

~~c) NO!~~ $n=10$ and pop. \bar{x} is skewed right
($10 < 30$)

d) varies (yes)

~~e) not really~~ → fails conditions

~~f) Yes~~ $n=40 \geq 30$ → more likely to 'succeed'