

19-11) a) pop = smokers who want to quit.
parameter = avg # of cig. / day

b) $22 \pm 2.586 \cdot \frac{10.8}{\sqrt{1818}}$
 $(21.347, 22.653)$

- $n \geq 30$, yes $n = 1818$
- SRS from pop. of int.
- not sure \Rightarrow volunteers?

c) No \Rightarrow 20 is not in the 99% C.I.

I am 99% confident the actual mean number of cigarettes smoked per day by all people that want to quit smoking is between 21.347 and 22.653.

19-13

degrees of freedom	80%	90%	95%	99%
4	1.533	2.132	2.776	4.604
11	1.363	1.796	2.201	3.106
23	1.319	1.714	2.069	2.807
80	1.292	1.664	1.990	2.639
infinity	1.282	1.645	1.960	2.576

b) larger

c) smaller

d) the infinity t-scores are the same as the critical value z