

```
1
2 const { mean, stdev, variance } = require('./util')
3 IQ = [
4     82, 96, 102, 103, 106, 107, 108, 108, 108, 109, 110, 110, 111,
5     13, 113, 113, 115, 115, 118, 119, 121, 122, 127, 136, 140, 146
6 ]
7 xBar = mean(IQ)
8
9 console.log(variance(IQ))
10 console.log(stdev(IQ))
11
12 stdErr = stdev(IQ) / Math.sqrt(IQ.length)
13 console.table([ { xBar, stdErr } ])
14
15
16 const median = (s, sample = s.sort()) => {
17     const n = sample.length
18     if (n % 2 == 0) {
19         return (sample[n/2-1] + sample[n/2]) / 2
20     } else {
21         return sample[Math.floor(n/2)]
22     }
23 }
24
25 const bootstrapSample = sample => {
26     return sample.map(() => sample[Math.floor(Math.random() * sample.length)])
27 }
28
29 const B = 200;
30 const bootstrapMedians = []
31 for (let i = 0; i < B; i++) {
32     bootstrapMedians.push(median(bootstrapSample(IQ)))
33 }
34 const SB = Math.sqrt(1/(B - 1) * variance(bootstrapMedians))
35 console.log(SB)
36
```