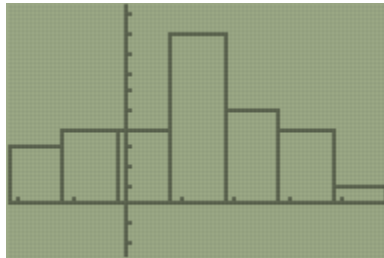


# ***Bootstrapping Program Testing***

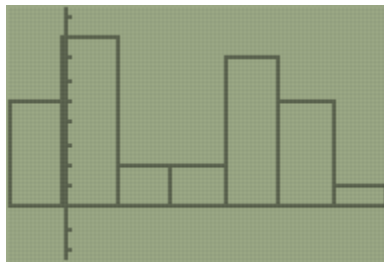
## **Setting Constant Lists:**

*TI-83:*

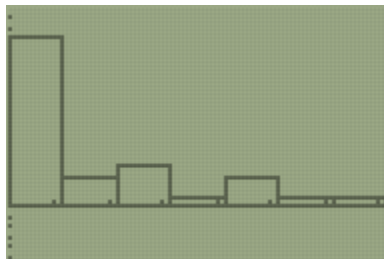
Symmetric Unimodal: {61, 24, 33, 3, 84, 39, -64, 54, -3, -32, 52, 37 109, -27, 68, 112, 21, -11, -43, 45, 46, 65, 81, 5, 103, 32, 42, -40, 91, -8}



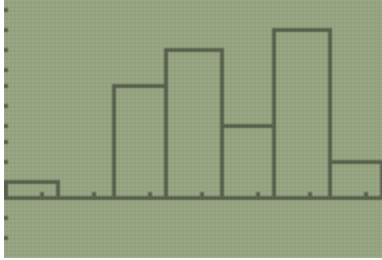
Bimodal: {-20, 61, 24, 33, 3, 84, 39, -64, 54, -3, -32, 52, 37, 109, -27, 272, 316, 225, 192, 160, 249, 250, 269, 285, 209, 307, 236, 246, 163, 195}



Right-Skewed: {5, 27, 33, 1, 19, 6, 6, 1, 1, 3, 13, 1, 15, 1, 11, 2, 1, 40, 30, 1, 20, 1, 1, 20, 1, 11, 28, 41, 6, 1}



Left-Skewed: {44, 36, 47, 46, 14, 37, 36, 31, 29, 31, 47, 39, 35, 45, 50, 46, 26, 37, 42, 42, 35, 31, 33, 49, 29, 41, 35, 45, 50, 49}



Uniform: { 1, 6, 40, 19, 26, 25, 46, 20, 9, 22, 50, 12, 25, 4, 49, 16, 26, 21, 12, 6, 49, 12, 8, 48, 20, 20, 32, 12, 28, 14 }

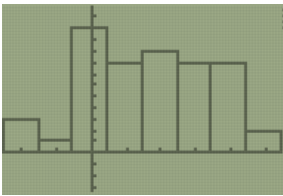
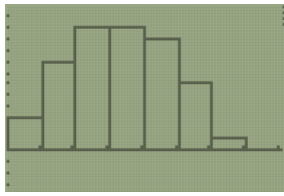
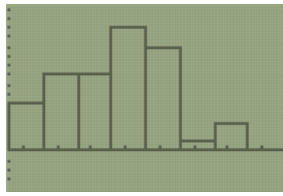
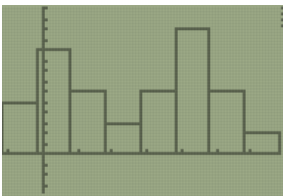
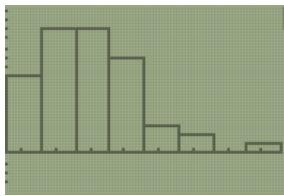
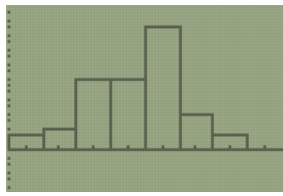
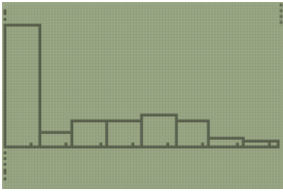
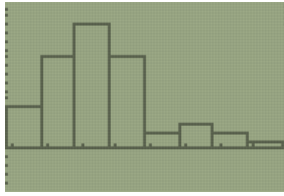
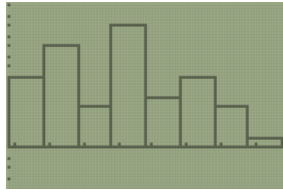
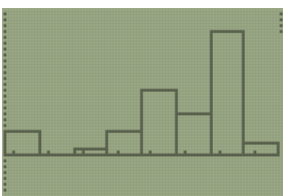
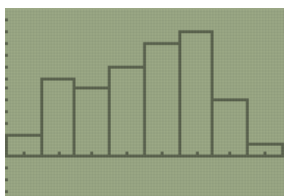
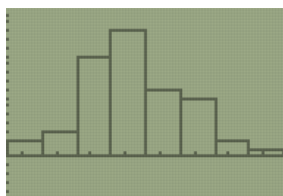
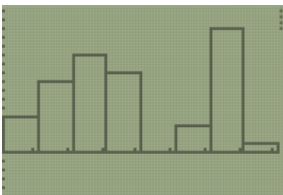
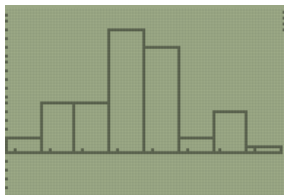
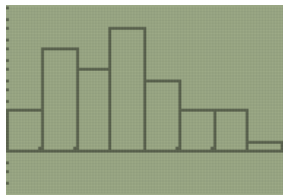


## TI-83

r = Resample size

Testing for bounds:  $1 \leq r \leq 15$

Iteration constant: 50

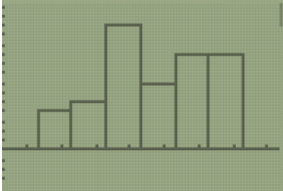
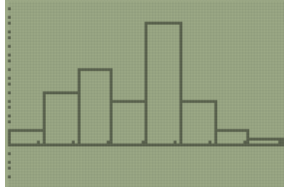
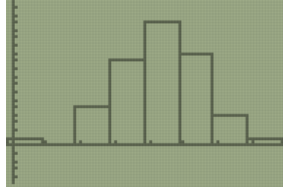
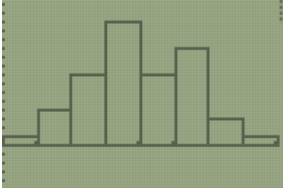
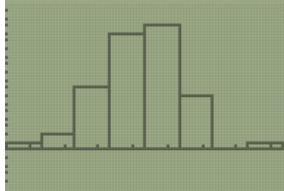

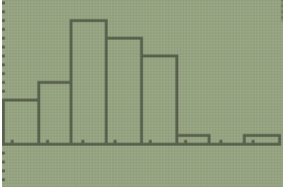
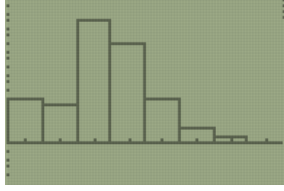
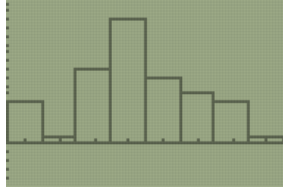
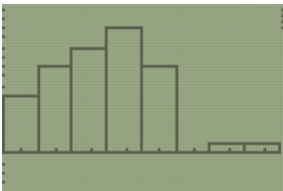
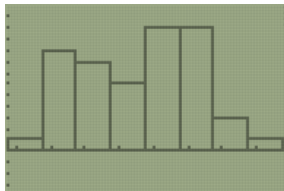
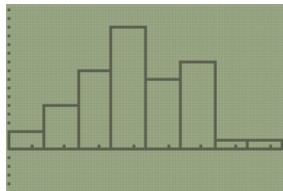
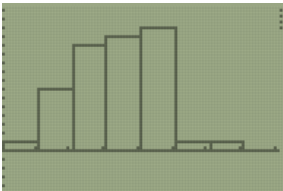
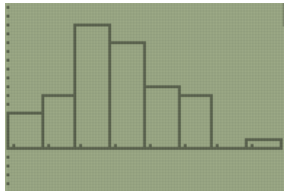
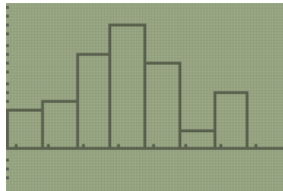
Resample Size: <u>Type of Distribution</u>	r = 1	r = 8	r = 15
<i>Symmetric Unimodal</i>  randNorm: Lower Bound- 1 Upper Bound- 50			
<i>Bimodal</i>  randNorm( $\mu$ & $9\mu$ ) x 2: Lower Bound- 1 Upper Bound- 50			
<i>Right-Skewed</i>  E+Frnd(30) <sup>3</sup> Lower Bound(E)- 1 Upper Bound(F)- 50			
<i>Left-Skewed</i>  E+Frnd(30) <sup>1/3</sup> Lower Bound(E)- 1 Upper Bound(F)- 50			
<i>Uniform</i>  randInt Lower Bound- 1 Upper Bound- 50			

## TI-83

r = Resample size

Testing for bounds:  $15 < r < 30$

Iteration constant: 50

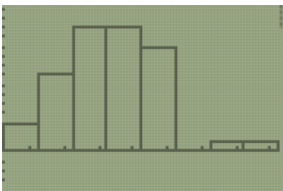
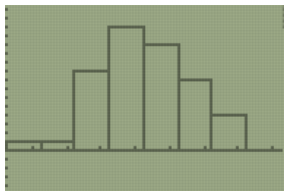
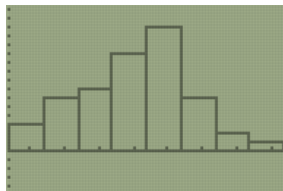
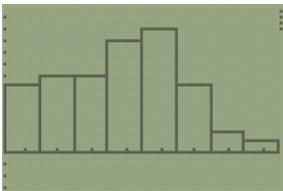
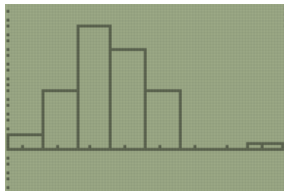
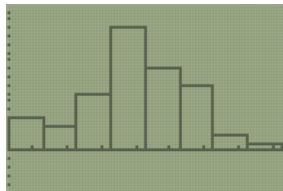
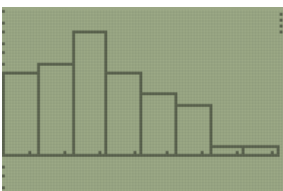
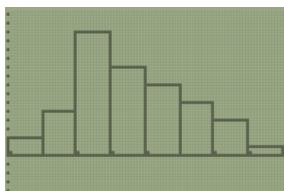
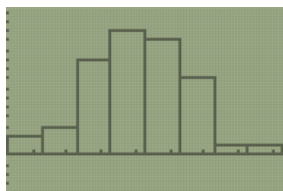
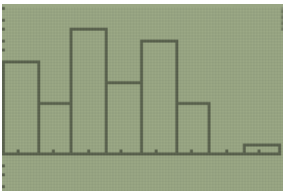
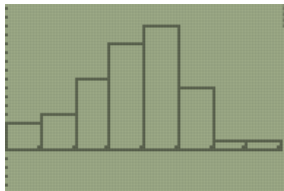
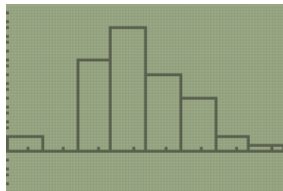
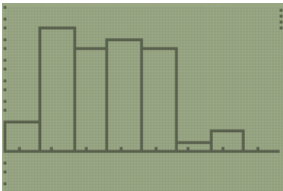
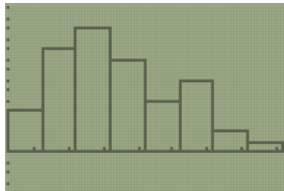
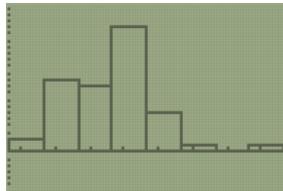
Resample Size: Type of Distribution	r = 16	r = 23	r = 29
<i>Symmetric Unimodal</i>  randNorm: Lower Bound- 1 Upper Bound- 50			
<i>Bimodal</i>  randNorm( $\mu$ & $9\mu$ ) x 2: Lower Bound- 1 Upper Bound- 50			
<i>Right-Skewed</i>  E+Frnd(30) <sup>3</sup> Lower Bound(E)- 1 Upper Bound(F)- 50			
<i>Left-Skewed</i>  E+Frnd(30) <sup>1/3</sup> Lower Bound(E)- 1 Upper Bound(F)- 50			
<i>Uniform</i>  randInt Lower Bound- 1 Upper Bound- 50			

## TI-83

r = Resample size

Testing for bounds:  $r \geq 30$

Iteration constant: 50

Resample Size: Type of Distribution	r = 30	r = 50	r = 99
<i>Symmetric Unimodal</i>  randNorm: Lower Bound- 1 Upper Bound- 50			
<i>Bimodal</i>  randNorm( $\mu$ & $9\mu$ ) x 2: Lower Bound- 1 Upper Bound- 50			
<i>Right-Skewed</i>  E+Frnd(30) <sup>3</sup> Lower Bound(E)- 1 Upper Bound(F)- 50			
<i>Left-Skewed</i>  E+Frnd(30) <sup>1/3</sup> Lower Bound(E)- 1 Upper Bound(F)- 50			
<i>Uniform</i>  randInt Lower Bound- 1 Upper Bound- 50			

So, in general, for the best optimal results of bootstrapping...

Resample Size < Sample Size < Iterations