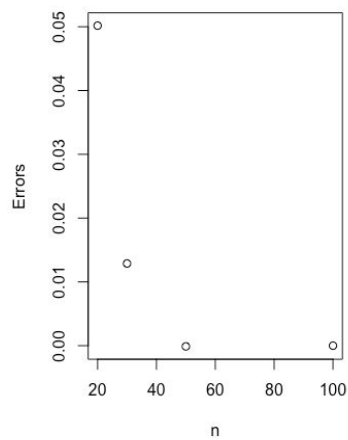


1.

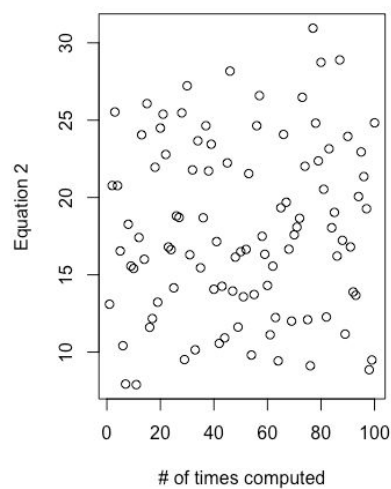
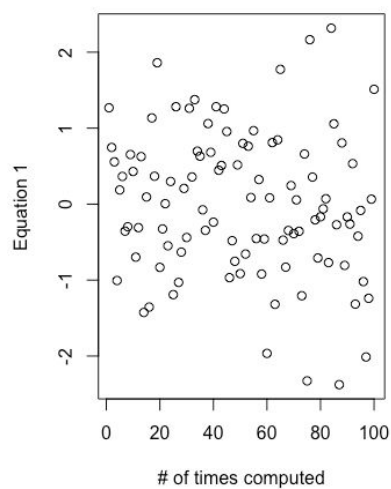
1.1.	n=20	0.5955987
	n=30	0.09401122
	n=50	0.0002305229
	n=100	5.431127e-13
1.2.	n=20	0.5454243
	n=30	0.08112525
	n=50	0.0003470073
	n=100	4.557597e-11



1.3.

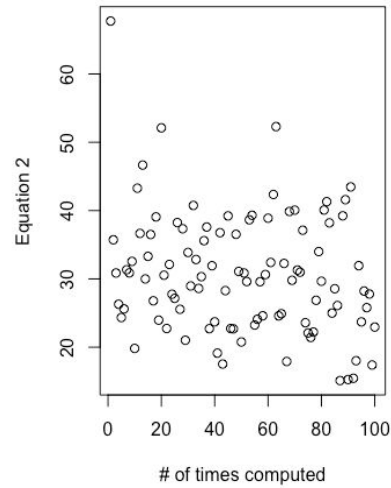
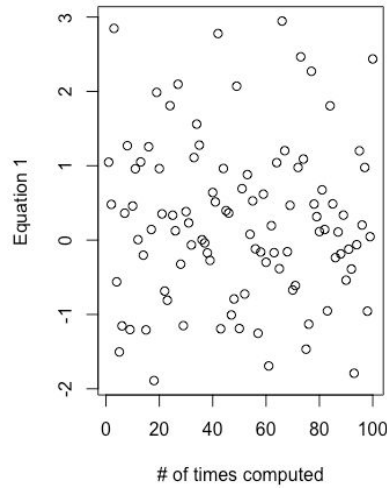
1.4. From the plot, we can see that the errors between the approximation decrease as the number of n increases. From $n=50$ and onward, the error begins to near 0.

2.



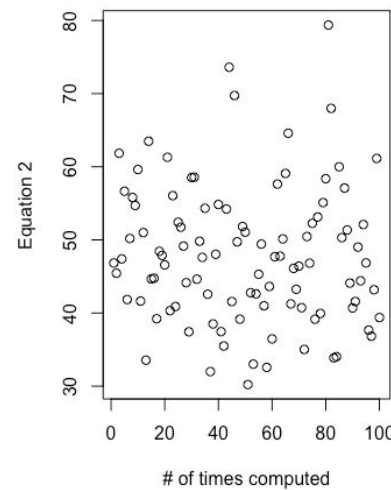
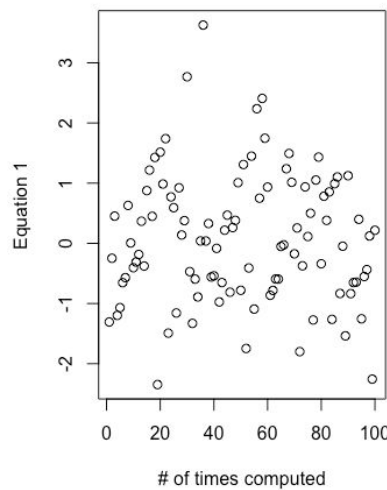
2.1.

$n = 20$



2.2.

n = 30



2.3.

n = 50

2.4. From these plots, we can see that as n increases, the value of equation $\frac{(\bar{X}-2)}{\sqrt{(3^2/n)}}$ remains close to 0. As for the other equation, $\frac{(n-1)S^2}{3^2}$, as n increases, so do its values. This can be explained by the equation itself since the variable n is in the numerator, the overall value of the equation should tend to increase as n does.

I pledge my honor that I have abided by the Stevens Honor System. -Eric Altenburg