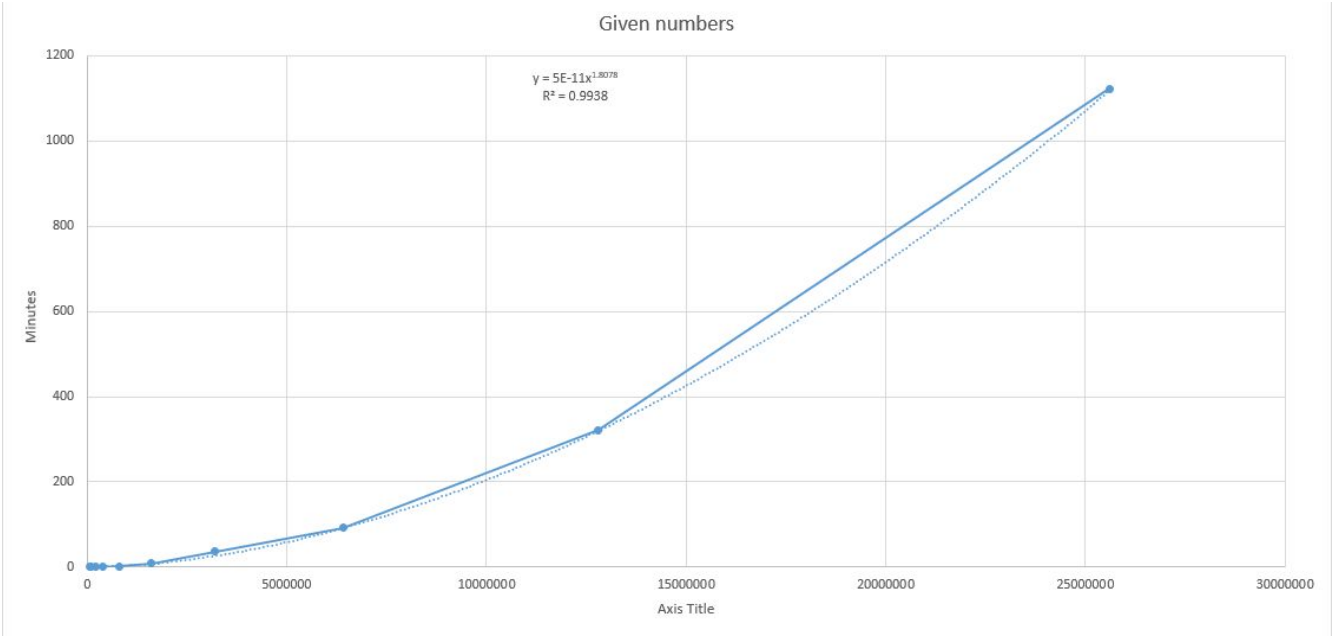
Mario Saiz

1) They both do the same thing, but the running time is what definitely makes it different. One runs way faster versus the other which runs really slow, mainly because they both have different code, which enables them to either go fast or slow.
2) I started this experiment right at 9 am.
3) I had to abort the running time because it was taking too long, but I plotted it and estimated the amount it would take via a formula. It would take approximately 92.2715 minutes to execute 6,400,000.
4)

	A	B
1	x	Minutes
2	50000	0.025517
3	100000	0.044517
4	200000	0.11195
5	400000	0.4301
6	800000	1.846667
7	1600000	8.162717
8	3200000	35.95493
9	6400000	92.2715
10	12800000	321.798
11	25600000	1122.28

5)



6) The formula for this is y=ax^2, and the big-O notation is O(x^2).
7) Both use different code, which runs differently. Repeat 1 uses y=ax^2, which is one of the slowest running time formulas to use, versus Repeat 2 which might use y=x, or something that runs way faster. Depending on the code you use, it might be faster to use. Repeat 2 goes forward without stopping, and repeat one goes forward, then backwards to go forward, and it keeps doing that, which makes it go even slower.
Repeat 1: Uses repeated concatenation to compose a String with n copies of character c

Repeat 2: Uses StringBuilder to compose a String with n copies of character c. This is why they differ.