Two algorithms were implemented, one which has a run time of (the brute force method) and a recursive multiplication method of . The way this was calculated was by using arrays of integers, and as the figure shows below it would look as though the brute force method is quicker than the recursive method.

However, the reason it looks as though the brute force is better is because there are too few inputs into this algorithm. The brute force method only will be better for sure as n becomes very large. N just isn’t big enough for it to dominate, but eventually the recursive method will preform better.