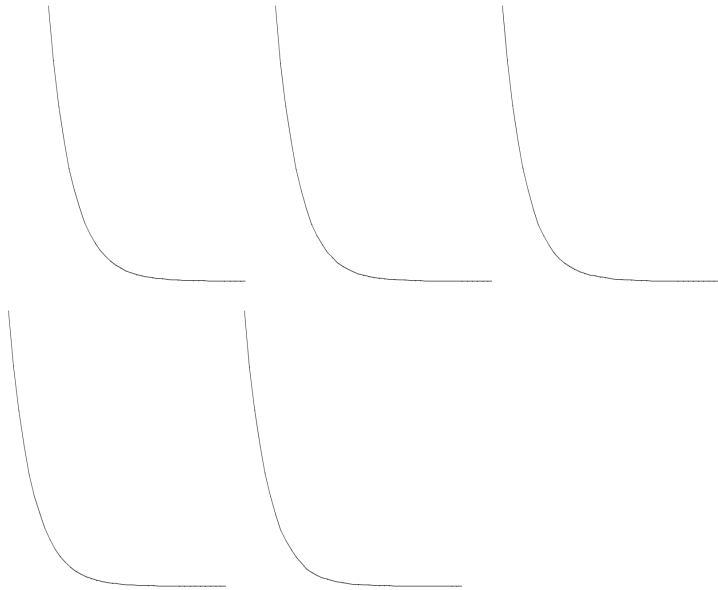# Decay lab

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1 Introduction

In the lab, I will run the experiment 5 times in order to find the average steps it takes a set amount of atoms to be totally depleted.

The initial amount of atoms will be 10000 and the probability of decay will be 0.2.

2 Data Collection

After running 5 trials, the results that I attained are 38, 42,45,52 and finally 49. The image below shows the graph of the data respectively.

3   Conclusion

Therefore, it will take

$$\frac{45 + 42 + 41 + 49 + 52}{5} = 45.8 (steps).$$

Genarally, it takes approximately 46 steps for 10000 atoms to deplete with a 0.2 probability of decay.