



I was able to get an area value = 3.1412 running  $10^7$  samples. This gave a standard deviation of 0.016281069625795473 and a standard uncertainty as  $1.6281069625795473 \times 10^{-6}$ . Also, the histogram for  $10^8$  samples had a narrower distribution, but I accidentally closed Spyder

before saving the area, and uncertainty information, and when I tried to run  $10^8$  samples again, my computer got mad at me and overheated :(. Hence  $10^7$  samples will have to do for now.