

Buffon's Needle Exploration Questions

1. Click on the "New Pin" button repeatedly and observe whether the needle hits or misses the lines. Record whether it is a hit or a miss through 15 experiments. What is the experimental probability of the needle hitting a line according to your data?
2. Is the experimental probability you found for question 1 close to the theoretical probability of the activity ($2/\pi$)? Explain why you think that your experimental probability is or is not close to the theoretical probability.
3. Now run 10, 100, 1,000 and 10,000 trials and observe the value of π for each amount of trials. What happens to the value of π as the amount of trials increases? Why do you think this is?