Using MS Excel (or any other adequate spreadsheet program such as the spreadsheet available in OPEN OFFICE), use simulation to obtain probabilities for the 3 problems below. View my solution to this lab on line at http://www.markeredwards.com/stats/stats.html.

Use at least 10,000 trials for each simulation **and** visually show the simulation with an Excel graph converging on a solution.

Boys

Experiment 1: On the roll of a single fair die, the result will be greater than 4.

Experiment 2: On the roll of a pair of fair dice, the summation result will be less than 10.

Girls

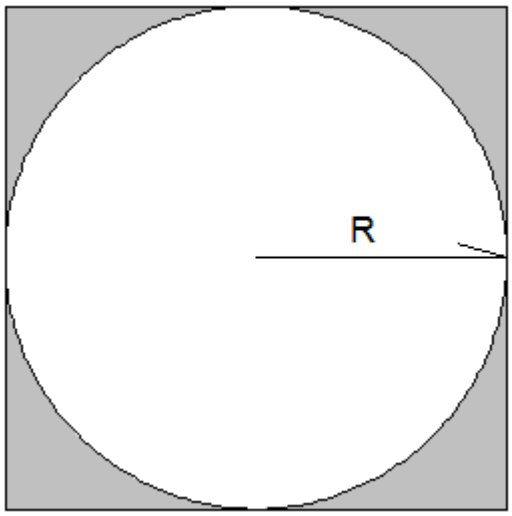
Experiment 1: On the roll of a single fair die, the result will be less than 3.

Experiment 2: On the roll of a pair of fair dice, the summation result will be greater than 4.

Both Boys and Girls:

Experiment 3: The value of PI () can be approximated by throwing darts at a dart board.

Assume a round dart board mounted within a square back board (shown) with a uniform distribution of darts in both the x and y directions being launched against the square dart back board. Assume all darts strike within the square region.



By simulating the throws and counting the hits within the circle relative to the total number of thrown darts, determine the value of PI.

Submit an Excel workbook as an attachment to mheinen_1@msn.com no later than 4-24-2017. Ensure the workbook file name is labeled as follows: LastName-DieDiceDartLab.xlsx. Example: Heinen-DieDiceDartLab.xlsx.