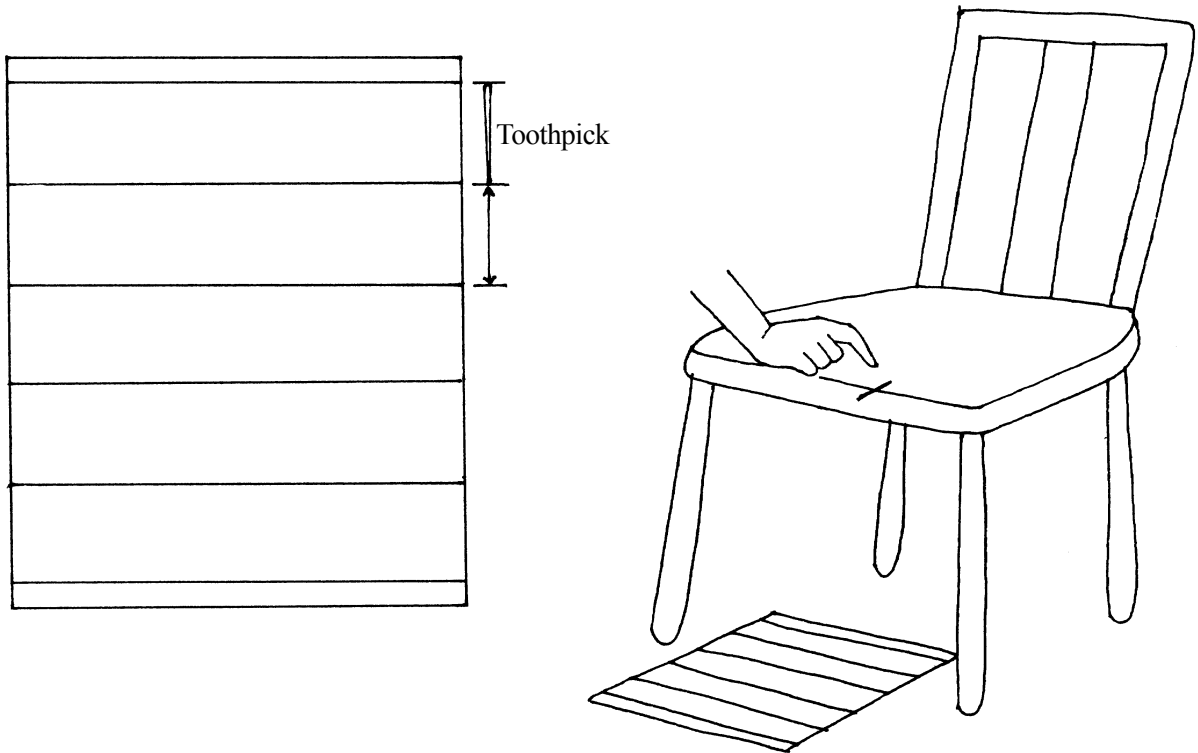


VALUE OF π

You could find the value of pi quite accurately by dropping toothpicks!



Count Buffon did this interesting experiment. You can repeat it 300 years later. Make a series of parallel lines on a sheet of paper. The lines should be one toothpick apart. The toothpick will play a crucial part in this experiment. Hold the toothpick on the edge of a chair and let it fall onto the ruled paper as shown.

Record the number of times any part of the toothpick touches any line. Also note down the number of times the toothpick does not touch any line. Count Buffon found that if you drop the toothpick enough times, a definite relationship exists between the two possibilities. The chance that the toothpick will touch a line is $2/3.14$ or $2/(\pi)$. We know that the circumference of a circle is equal to its diameter multiplied by (π) . The constant (π) has been identified with a circle. Isn't it strange that the toothpick dropping experiment can help you find the value of (π) .

An Italian mathematician Lazzarini dropped the toothpick 3408 times. The value of (π) which he obtained was 3.1415929.. an error of just .0000003 !