

Group members:

Experimental part (I)

Needed objects: a rounded thing (e.g. a bottle, a box, a tin), thread, tape measure or a meter measure

(1) Measure a circumference of a circle and a diameter of a circle.

(2) Fill in a table. Write down the results of your measurements, then calculate the ratio of a circumference of a circle to a diameter of a circle.

Name of a thing	a circumference of a circle [cm]	a diameter of a circle [cm]	$\frac{\text{a circumference of a circle}}{\text{a diameter of a circle}}$

Experimental part (II)

Needed objects: a scotch tape, a some kind of a stick (for e.g. a toothpick or a skewer)

(1) Mark a parallel lines with a scotch tape on the floor, if you have a big stick, or on a desk if you have a small one. A distance between the lines should be equal to the size of your stick.

(2) Throw your stick several times (at least ten times for one member of a group). Count how many times your stick have fallen down on the line. Write down the exact number of your throws (N – throws number) and the number of the throws when your stick crossed the line (X).

N -

X-

(2) Calculate according to the given formula:

$$\frac{2N}{X} =$$

(3) Answer the questions.

Is your result close to the value of a π number?

Does the number of throws affect the result of your calculation?

Does the way of throwing affect the probability of crossing the line?