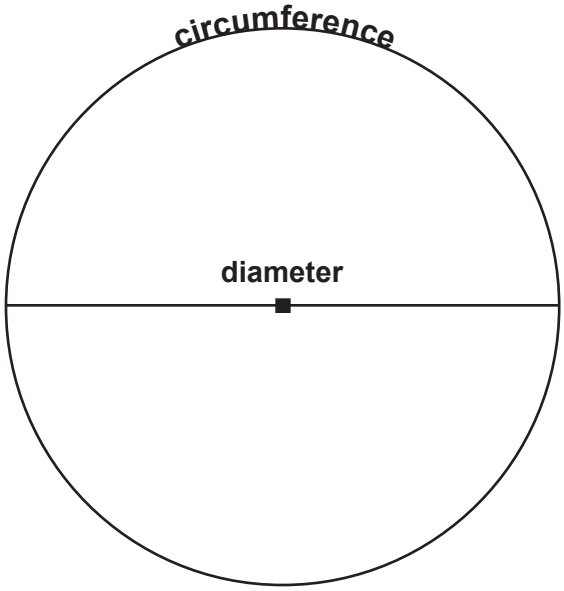
Relation Between Circumference and Diameter

The diameter of a circle is two times the radius. It is also the longest distance across a circle.



Materials. For these activities you will need cans, flasks, circular lids, or other objects that have a circle, adding machine paper, cm measuring tape, and a calculator.

Activity 1

Cut a strip of adding machine paper that measures the distance around the can. Use another strip of paper to measure the distance across. Display the two strips next to each other. Compare the lengths of the two strips.

- *What can you say about their relative size?*

Repeat the activity with other objects that have circles of different sizes. For each circle, compare the strips of paper corresponding to the diameter and to the circumference.

Activity 2

Measure using a cm measuring tape the circumference of the can. Measure the diameter. Enter your value on the table.

Repeat the activity with other objects that have circles of different sizes.
Observe the values you obtained on the different objects.

- *What can you say about the size of the circumference compared to that of the corresponding diameter?*

Use a calculator to compute the ratio of the circumference to the diameter. Report the value to one place after the decimal point.