EXAMPLE 1

Problem: Write a program to compute the circumference of a circle, given the radius.

Analysis:

There is one input, the radius. There is one output, the circumference. To obtain the output from the input, we need to multiply the radius by $2*\pi$, where $\pi = 3.1415926535$.

Variables table:

Name	Data Type	Usage
Radius	Float	The radius provided by the user
Circumference	Float	The computed circumference
Pi	Float	The constant π

Some Test Cases:

Radius (Input)	Circumference (Output)
1.0	6.283185307
0.318309886 (This is $1/\pi$)	2.0
0.0	0.0

Pseudocode

Begin program
Declare Float Radius, Circumference, Pi
Set Pi = 3.1415926535
Print "Please enter the radius"
Input Radius
Set Circumference = 2*Pi*Radius
Print "The circumference is " + Circumference
End program

Note: In the second-last line, the + indicates concatenation rather than addition. The convention is: if the items on both sides of the + are numeric, then add; otherwise convert any numeric values to strings and concatenate the strings. This convention is followed in many programming languages including Java, but not in C. It is freely used in pseudocode.