

Exercises I

CSE Bridge Workshop, August 2008

Expressions, Assignments, and Functions

Start JES and do the following:

1. Enter the following expressions and see what answers you get. You should be able to explain why you get the values you see.

$3+4*5$ $3+(4*5)$ $(3+4)*5$ $12/5$ $12\%5$ $12.0/5.0$ $12.0/5$ $12\%5.0$
 $72*3/4$ $3/4*72$

2. Figure out the formula to convert temperatures in Celsius to Fahrenheit (the inverse of the formula in the example in the slides). Then use JES as a calculator to convert the Celsius temperatures 0 and 100 to Fahrenheit using your formula.
3. Create a function `c2f(temp)` to convert a temperature in Celsius to Fahrenheit. Save the code in file `ex1.py` on your desktop, load it, then test your function by converting the Celsius temperatures 0, 100, 22, and -10 to Fahrenheit.
4. If there is time, write and test the following functions:
 - a. `vol(r,h)` – return the volume of a cylinder with radius `r` and height `h`. (Hint: you can either write out 3.14159... or you can use the variable `pi` that is defined for you by Python.)
 - b. `dist(x1,y1,x2,y2)` – return the distance between points `(x1,y1)` and `(x2,y2)`. (Hint: Python's `sqrt(x)` function is helpful here.)