CS Exam 1 Cheat Sheet

by Casey Schmidt (Scribmaster12) via cheatography.com/116876/cs/21788/

math functions and errors

// whole # division	sytax -error in code form	a+=1 -> a=a+1
% find the remainder	semantic -error in logic	a/=1 -> a=a/1

** read right to left

/ always gives a float

x%y = x-y*(x//y)

{:.xf} -round float to x decimals points

Numerical functions

abs() -gives absolute values

pow(number,exponent)

int() -turns object to integer

float() -turns object to float

-round(number,what to round to)

-max() -finds max in list

min() -finds min in list

Import Math

math.pi is pi

math.sqrt(x) -takes square root of x

math.log(base,variable)

math.e is e

math.ceil(x) -returns smallest integer greater than x

math.trunc(x) -removes decimal values from x

String manipulation

\n -end current line and start new

\t -creates a "tab"

\' or \" -doesnt interpret as string delimiter

\\ -true backslash

, creates defaut space of 1. can be use with all object types	+ creates no space. Cant be use to put together string and integer (or float)

string.lower() -turns all letters to lowercase

string.upper() -turns all letter to uppercase

string.capitalize() -only first letter in string is uppercase

string.title() -first letter of every word is uppercase

string.replace(string you want to replace, what you replace with)

string.find(what you want to find)	gives number of location in string	returns -1 if it cant find
string.count(what you want to count)	will give number counted	returns 0 if nothing to count

string.strip(what you want to remove)

sep="" -used to change default space betwen objects seperated by ,

Variables and object interactions

Variables start with letter or _

Variables can't have spaces

string and integers cant be added

string and sting cant be multiplied

Lexographical Order

Uppercase < Lowecase	true
a < b	true

Tuples

len(tuple) -gives the # of objects in a tuple

cant update a tuple

tuples and strings are immutable

tuples can be added

ex r=(1,1)

r+s=(1,1,'a','b')

Boolean Logic

If, elif, and else must all end with :

any commands following must be indented

can us <, <=, >, >, >=, ==, or !=

!= is for not equal to

cant use = since that is for variable assignment

output values are only true or false

Functions

def function_name(Variable):

every line which comes below is indented

can end with return statement to return a variable

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