Python for Programmers

## Welcome

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### Python 2 vs 3

### Mac Setup

### Windows setup

## Numbers

### Intro

### Variables and ints

Variable do not need to be declared. Like matlab juts introduce them

### Floats

### Math

### Advanced Math

import math  # need for pi

5\*\*3  # \*\* is exponential like in Fortran

5 // 3 # integer division

5 % 3   # remainder

round(math.pi,2)

int(math.pi)

# \_ gives most recent result

2\*\_

int(pi)

float(8)

### Conversion

### Outro

## Strings

# can use single or double quotes

'hello'

"hello"

# use 3 quotes of either type for multi-line strings

'''hello

world'''

"""hello

world"""

# can use strings as comments

# + is the concatination operator

print("hello"+" "+'world!')

# \* is used for repition of a string

print(9\*"9")

# printing variables

age = 30

print("My age is {}".format(age))

print("My age is {} and pi is {}".format(age, 3.1415))

"Hello".upper()

"Hello".lower()

"Hello world".title()

len("hello")

s="Hi my name is Bob".replace("Bob","Jim")

print(s)

s[0]

s[-1]

s[-17]   # gives same as s[0]

s[16]   # gives same as s[-1]

s[-18]    # gives an error

s[17]    # gives an error

# slices. s[n:m] goes from s[n] to s[m-1]  !

s[0:2]

s[6:10]

s[3:-4]

s[:10]  # same as 0:9

s[3:]   # same as 0:len

s[3:0]  # gives "" empty string

s[-1:]  # final character