**Week 3 Quiz**

Multiple Choice

1/1 punto (calificado)

When working with cells in Jupyter, what does “\_” refer to?

The output of the last cell executed.

A space in the line of code.

A string character.

.

True or False

1/1 punto (calificado)

Code in the Jupyter code cells are restricted to being one line.

True

False

.

Multiple Choice

1/1 punto (calificado)

Using markdown cells in Jupyter, how do you format text as bold?

\*\*word\*\*

\*word\*

##word##

#word#

.

Checkboxes

1/1 punto (calificado)

What are the 3 reasons that data scientists working in Python use numpy all the time?

Its speed.

Its functionality.

Many packages rely on numpy.

It enables text markup cells.

.

True or False

1/1 punto (calificado)

Elements in numpy arrays must be all the same type.

True

False

.True or False

1/1 punto (calificado)

ndarrays are mutable.

True

False

.

Multiple Choice

1/1 punto (calificado)

Look at the following code:

b = np.array([1,2,3])

b[1] = 'one'

What error prints out after you run these two lines of code?

SyntaxError

NameError

KeyError

ValueError correcto

.

Multiple Choice

1/1 punto (calificado)

How do you create an Rank 1 array with numpy using the numbers 1, 2, 3?

np.ndarray([1,2,3])

np.array([1,2,3])

np.array(1,2,3)

np.ndarray(1,2,3)

np.ndarray([[1,2,3],[3,2,1])

np.array([[1,2,3],[3,2,1])

.

Multiple Choice

1/1 punto (calificado)

There is a syntax error in the code below.

np.array( [11,12,13],[21,22,23] )

How would you fix it to create the intended 2x3 array?

np.array( [[11,12,13],[21,22,23]] )

np.array( [11,12,13,21,22,23] )

np.array( [11,12,13],[21,22,23] )

np.array[ [11,12,13,21,22,23] ]

.

Multiple Choice

1/1 punto (calificado)

How would you change the number 5 to 7 in this matrix?

arr = np.array([1,2,3,4,5])

arr[0,5] = 7

arr[4] = 7

arr[5] = 7

arr[0,4] = 7

Checkboxes

1/1 punto (calificado)

Given the code below:

arr = np.array([[1,2,3,4],[5,6,7,8],[9,10,11,12]])

Which of the following two commands below produce the same result?

arr[0:1,1:3]

arr[2,1:3]

arr[1,1:3]

arr[:1,1:3]

Multiple Choice

1/1 punto (calificado)

If you try to access rows of a 3-by-3 numpy array called “arr” using the command:

arr[:2,]

How many rows will be returned?

2

3

IndexError: index out of bounds

Multiple Choice

1/1 punto (calificado)

You are given the following lines of code:

arr = np.array([[1,2,3],[4,5,6],[7,8,9]])

slice = arr[:2,1:3]

slice[0,0]

What is the result of “slice[0,0]” in your last line of code?

1

2

3

4

Multiple Choice

1/1 punto (calificado)

You are given the following lines of code:

arr = np.array([[1,2,3],[4,5,6],[7,8,9]])

slice = arr[:2,1:3]

slice[0,0]

What element in arr is equivalent to slice[0,0]?

arr[0,0]

arr[0,1]

arr[2,2]

arr[0,2]

True or False

1/1 punto (calificado)

Changing an element of an array slice in numpy will NOT change the original array.

True

False

Checkboxes

1/1 punto (calificado)

In what 3 ways can you quickly access numpy array elements?

Slicing

Using an array of indices

Boolean indexing

Segmenting an array

Multiple Choice

1/1 punto (calificado)

What is the correct way to access elements of an array “arr” that are less than 0?

arr[<0]

arr[arr<0]

arr[arr[,]<0]

Checkboxes

1/1 punto (calificado)

Select two valid ways to get the odd values of an array “arr.”

arr[(arr % 2 != 1)]

arr[(arr % 2 != 0)]

arr[(arr % 2 == 1)]

arr[(arr % 2 == 0)]

Multiple Choice

1/1 punto (calificado)

What requirement is needed to add two numeric numpy arrays?

They need to have the same or compatible dimensions.

They need to be of the same type.

They need to be converted to type float first.

Multiple Choice

1/1 punto (calificado)

What command allows you to sum all of the elements in an Rank 2 ndarray called “a”?

a.sum()

sum(a)

A+a

a.add()

Multiple Choice

1/1 punto (calificado)

What is the result of the following lines of code?

a=np.array(["cat","dog","fish"])

b=np.array(["dog","fish","rabbit"])

print(np.setdiff1d(a,b))

['cat'] correcto

['rabbit']

['dog' 'fish']

['cat' 'dog' 'fish' 'rabbit']

Multiple Choice

1/1 punto (calificado)

What is the output of the following broadcasting call?

A = np.array([[1],[2]])

B = np.array([[1,2],[3,4]])

A + B

array([[2, 3], [5, 6]])

array([[2, 4], [4, 6]])

array([[1, 2], [3, 4],[1,2]])

Value Error

True or False

1/1 punto (calificado)

Take a look at the following lines of code:

a = np.array([2, 3])

b1 = np.array([1])

b2 = 1

True or False: a+b1 and a+b2 result in the same ndarray.

True

False

Checkboxes

1/1 punto (calificado)

Which of the following are benefits of ndarrays over lists? Select 3.

Ndarrays are more space efficient.

Ndarrays are more optimized for memory.

Ndarrays often have faster computation.

Ndarrays have more variable types than lists.

Multiple Choice

1/1 punto (calificado)

In an RGB images, which three values specifying a pixel's color correspond to the color white?

255, 255, 255

0, 0, 0

100, 100, 100

255, 0, 255

Multiple Choice

1/1 punto (calificado)

Which layer of the 3 layer matrix of colors corresponds to the color blue when working with images in Numpy?

Layer 0

Layer 1

Layer 2