

<u>Course</u> > <u>Week 3 - Jupyter No...</u> > <u>Week 3: Assessment</u> > Week 3 Quiz

Week 3 Ouiz

Multiple C 1/1 point (grade When workins	
• The outp	out of the last cell executed. 🗸
O A space	in the line of code.
○ A string	character.
Answer Correct: Video	o: "Jupyter: Getting Started"
True or Fa 1/1 point (grade Code in the Ju	
○ True	
○ False	
Answer Correct: Video	o: "Jupyter: Getting Started"

Multiple Choice

1/1 point (graded)

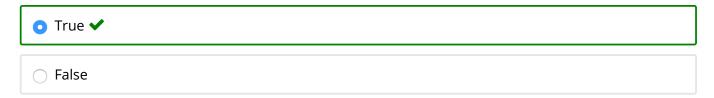
Using markdown cells in Jupyter, how do you format text as bold?

• **word** ✓
word
##word##
#word#
Answer Correct: Video: "Documenting Analysis with Markdown Text" Submit
Checkboxes 1/1 point (graded) 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.
Answer Correct: Video: "Why Numpy" Video: "Why Numpy" Video: "Why Numpy" Video: "Why Numpy"

True or False

1/1 point (graded)

Elements in numpy arrays must be all the same type.



Answer

Correct: Video: "Why Numpy"

Submit

True or False

1/1 point (graded) ndarrays are mutable.



Answer

Correct: Video: "Numpy: ndarrays Basics"

Submit

Multiple Choice

1/1 point (graded)

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		

O ValueError ✓		

Answer

Correct: Video: "Numpy: ndarrays Basics"

Submit

KeyError

Multiple Choice

1/1 point (graded)

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.ndarray(1,2,3)

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

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

Answer

Correct: Video: "Numpy: ndarrays Basics"

Submit

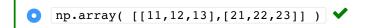
Multiple Choice

1/1 point (graded)

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]]

Answer

Correct: Video: "Numpy: ndarrays Basics"

Submit

Multiple Choice

1/1 point (graded)

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

 \bigcirc arr[0,5] = 7

arr[4] = 7

 \cap arr[5] = 7

 \bigcirc arr[0,4] = 7

Answer

Correct: Video: "Numpy: ndarrays Basics"

Submit

Checkboxes

1/1 point (graded)

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]



Answer

Correct:

Video: "Numpy: ndarray Indexing" Video: "Numpy: ndarray Indexing" Video: "Numpy: ndarray Indexing" Video: "Numpy: ndarray Indexing"

Submit

Multiple Choice

1/1 point (graded)

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
Answer Correct: Video: "Numpy: ndarrays Indexing" Submit
Multiple Choice 1/1 point (graded) You are given the following lines of code:
<pre>arr = np.array([[1,2,3],[4,5,6],[7,8,9]]) slice = arr[:2,1:3] slice[0,0]</pre>
What is the result of "slice[0,0]" in your last line of code?
○ 1
○ 2 ✓
○ 3

Correct: Video: "Numpy: ndarrays Indexing"

Submit

Multiple Choice

1/1 point (graded)

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]
o arr[0,1]
○ arr[2,2]
○ arr[0,2]

Answer

Correct: Video: "Numpy: ndarrays Indexing"

Submit

True or False

1/1 point (graded)

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

○ True			



Correct: Video: "Numpy: ndarrays Indexing"

Submit

Checkboxes

1/1 point (graded)

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

✓ Slicing	
✓ Using an array of indices	
☑ Boolean indexing	
☐ Segmenting an array	
Inswer Sorrect: Sideo: "Numpy: ndarray boolean Indexing" Sideo: "Numpy: ndarray boolean Indexing" Submit Indexing boolean In	
Multiple Choice /1 point (graded) What is the correct way to access elements of an array "arr" that are less than 0? arr[<0]	
o arr[arr<0] ✓	
ourr[arr[,]<0]	
Inswer Forrect: Video: "Numpy: ndarray boolean Indexing Submit	
Checkboxes /1 point (graded)	

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)]



Answer

Correct:

Video: "Numpy: ndarray boolean Indexing" Video: "Numpy: ndarray boolean Indexing" Video: "Numpy: ndarray boolean Indexing" Video: "Numpy: ndarray boolean Indexing"

Submit

Multiple Choice

1/1 point (graded)

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.

Answer

Correct: Video: "Numpy: ndarray DataTypes and Operations"

Submit

Multiple Choice

1/1 point (graded)

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

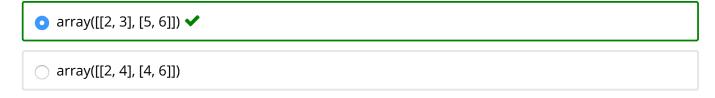
2 sum() •4	
o a.sum() ✔	
o sum(a)	
○ A+a	
a.add()	
Answer Correct: Video: "Numpy: Statistical, So	orting, and Set Operations"
Submit	
Multiple Choice	
1/1 point (graded)	
What is the result of the following line	es of code?
<pre>a=np.array(["cat","dog","fish"]) b=np.array(["dog","fish","rabbit"] print(np.setdiff1d(a,b))</pre>)
○ ['cat'] ✔	
○ ['rabbit']	
○ ['dog' 'fish']	
['cat' 'dog' 'fish' 'rabbit']	
Answer Correct: Video: "Numpy: Statistical, So	orting, and Set Operations"
Submit	

Multiple Choice

1/1 point (graded)

What is the output of the following broadcasting call?

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



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

Answer

Correct: Video: "Numpy: Broadcasting"

Submit

True or False

1/1 point (graded)

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

Answer

Correct: Video: "Numpy: Broadcasting"

Submit

Checkboxes

1/1 point (graded)

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.



Answer

Correct:

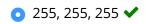
Video: "Numpy: Speed Test ndarray vs list" Video: "Numpy: Speed Test ndarray vs list" Video: "Numpy: Speed Test ndarray vs list" Video: "Numpy: Speed Test ndarray vs list"

Submit

Multiple Choice

1/1 point (graded)

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



0, 0, 0

100, 100, 100

255, 0, 255

Answer

Correct: Video: "Satellite Image Example"

Submit

Multiple Choice
1/1 point (graded) Which layer of the 3 layer matrix of colors corresponds to the color blue when working with images i Numpy?
○ Layer 0
○ Layer 1
● Layer 2 ✔

Correct: Video: "Satellite Image Example"

Submit

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