

Developer Student Clubs

Al-Azhar University



Numpy exercises



✓ what output of the following code: *	1/1
<pre>import numpy as np np.arange(1,10,2)</pre>	
return odd numbers in interval	✓
return even numbers in interval	
return odd and even numbers in interval	
✓ how many element in the following array: *	1/1
✓ how many element in the following array: * np.linspace(1,10)	1/1
	1/1
np.linspace(1,10)	1/1
np.linspace(1,10) 10	1/1
np.linspace(1,10) 10 20	1/1

~	what data type of element in the following array: * 1/	1
np.	inspace(1,10)	
\circ	int	
•	float	
0	double	
\bigcirc	long	
~	Which of the following can use to create a vector in specific interval?? * 1/	1
\bigcirc	np.arange	
\bigcirc	np.linspace	
\bigcirc	np.random.randint	
•	All the above	



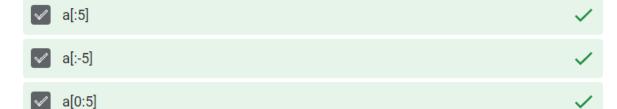
np.random.randint(1,50,(4,4))np.random.randint(1.,50.) A: B: np.random.randint(1.,51.) np.random.randint(1.,51.,4) C:) D:



Consider an integer vector a , Which of the following can use to get " array([1, 2,3,4,5]) " *

```
In [24]: a=np.arange(1,11)
a
Out[24]: array([ 1,  2,  3,  4,  5,  6,  7,  8,  9,  10])
```

a[0,1,2,3,4]



/	Consider an integer vector a , Which of the following can use to get
	numbers divisible of 3? *

1/1

```
In [24]: a=np.arange(1,11)
a
Out[24]: array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])

a[a%3=0]

a[a%3==0]

a[i%3==0]

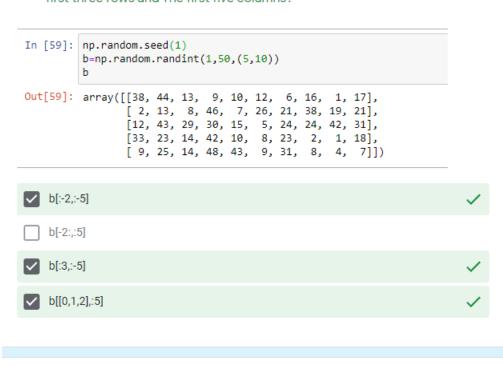
✓
```

✓ Consider an integer Matrix b, what output of the following code: * 1/1

```
b=np.random.randint(1,50,(5,10))
c=b[b>25]
c[c<40]
```

- return numbers greater than 25
- return numbers less than 40
- return numbers greater than 40
- return numbers greater than 25 and less than 40

✓ Consider an integer Matrix b, Which of the following can use to get The 1/1 first three rows and The first five columns? *



✓ Consider an integer vector a , which of these expressions are legal? * 1/1

```
In [24]: a=np.arange(1,11)
a
Out[24]: array([ 1,  2,  3,  4,  5,  6,  7,  8,  9,  10])
```

- a**a
- () a//a
- a-np.log(a)
- All the above

Consider an integer Matrix A , Which of the following can use to swap the first two columns? *	ne 1/1
A = np.arange(12).reshape(3, 4) A	
array([[0, 1, 2, 3],	
A[:,[0,1]]=A[:,[1,0]]	✓
A[[0,1]]=A[[1,0]]	
A[[0,1],:]=A[[1,0],:]	
A[0,1]=A[1,2]	
✓ Which of the following can use to add value to array? *	1/1
np.append(val)	
np.append(arr,val)	~
insert(arr,val)	
insert(val)	

✓ what shape of output of the following code: *	1/1
<pre>B=np.random.randint(0,12,(3,4)) np.append(B,2,axis=0)</pre>	
(4,4)	
(3,5)	
(3,4)	
Value Error	~
<pre>Consider an integer Matrix B, Which of the following can use to get minimum value in B? * np.random.seed(1) B=np.random.randint(0,12,(3,4)) B array([[5, 11, 8, 9],</pre>	1/1
B.min()	~
pp.min(B)	~
min(B)	
None of the above	

Consider an integer Matrix B is the same in previous question ,what output of the following code: *	1/1
<pre>np.random.seed(1) B=np.random.randint(0,12,(3,4)) np.max(B,0)</pre>	
O 11	
array([11, 11, 8, 9])	~
array([11, 11, 9])	
✓ what output of the following code: *	1/1
<pre>B=np.arange(12).reshape(4,3) np.mean(B,1)[0]</pre>	
array([1., 4., 7., 10.])	
array([4.5, 5.5, 6.5])	
1.0	✓
O 4.5	

```
a=np.arange(12).reshape(4,3)
b=np.arange(8).reshape(4,2)
c=np.concatenate(a,b,axis=1)
c.shape
```

- (4, 5)
- (8, 5)
- $\bigcirc (4,4)$
- Error

```
np.random.seed(1)
B=np.random.randint(0,12,(3,4))
array([[ 5, 11, 8, 9],
       [11, 5, 0, 0],
[1, 7, 6, 9]])
np.sort(B,1)
                                            array([[ 1, 5, 0, 0],
  array([[ 5, 8, 9, 11],
     [ 0, 0, 5, 11],
[ 1, 6, 7, 9]])
                                                 [5, 7, 6, 9],
                                                   [11, 11, 8, 9]])
 ) A:
                                            ) B:
  array([[ 5, 8, 9, 11],
        [ 0, 0, 5, 11],
[ 1, 6, 7, 9]])
C:
```