Your grade: 70%

Your latest: **70%** • Your highest: **70%** • To pass you need at least 70%. We keep your highest score.

[Next item →]

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1. What is the result of the following lines of code?   **1 / 1 point**

```
1   a=np.array([0,1])
2   b=np.array([1,0])
3   np.dot(a,b)
```

◉ 0

○ 1

○ array([1,1])

✓ **Correct**
correct

---

2. What is the value of Z after the following code is run?   **1 / 1 point**

```
1
2   X=np.array([[1,0],[0,1]])
3   Y=np.array([[0,1],[1,0]])
4   Z=X+Y
5
```

◉ array([[1,1],[1,1]])

○ array([[1,0],[0,1]])

○ array([[0,1],[1,1]])

✓ **Correct**
correct, the '+' corresponds to matrix addition

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3. What values does the variable **out** take if the following lines of code are run?   **1 / 1 point**

```
1
2   X=np.array([[1,0,1],[2,2,2]])
3   out=X[0,1:3]
4   out
5
```

○ array([1,0,1])

◉ array([0,1])

○ array([2,2])

✓ **Correct**
correct, the first index corresponds to the rows the second index corresponds to the columns

---

4. What is the value of **Z** after the following code is run?   **0 / 1 point**

```
1
2   X=np.array([[1,0],[0,1]])
3   Y=np.array([[2,2],[2,2]])
4   Z=np.dot(X,Y)
```

```
4    Z=np.dot(x,Y)
5
```

- ○ array([[2,2],[2,2]])
- ◉ array([[2,0],[0,2]])
- ○ array([[3,2],[2,3]])

⊗ **Incorrect**
    incorrect, the first index corresponds to the rows the second index corresponds to the columns

---

5. Consider the following text file: **Example1.txt**:

This is line 1

This is line 2

This is line 3

What is the output of the following lines of code?

`0 / 1 point`

```
1
2    with open("Example1.txt","r") as File1:
3
4        file_stuff=File1.readline ()
5
6        print(file_stuff)
```

- ○ This is line 1
- ◉ This is line 1

    This is line 2

    This is line 3
- ○ This is line 1

    This is line 2

⊗ **Incorrect**
    Incorrect. This would be the output of the method read.

---

6. Consider the following line of code:

`1 / 1 point`

```
1
2    with open(example1,"r") as file1:
3
```

What mode is the file object in?

- ◉ read
- ○ write
- ○ append

✓ **Correct**
    Correct, the mode is set to r for read.

---

7. What do the following lines of code do?

`0 / 1 point`

```
1
2    with open("Example.txt","a") as writefile:
3
4        writefile.write("This is line A\n")
```

```
5    writefile.write("This is line B\n")
```

- ⦿ Read the file "Example.txt"
- ○ Write to the file "Example.txt"
- ○ Append the file "Example.txt"

⊗ **Incorrect**
Incorrect. Check the mode of the function open.

---

8. What do the following lines of code do?   1 / 1 point

```
1
2    with open("Example3.txt","w") as file1:
3
4    file1.write("This is line C\n")
5
```

- ○ Read the file "Example3.txt".
- ○ Append the file "Example3.txt".
- ⦿ error

✓ **Correct**
Correct. There is no indent.

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9. Consider the dataframe **df**. How would you access the element in the 2nd row and 1st column?   1 / 1 point

- ⦿ df.iloc[1,0]
- ○ df.iloc[2,1]
- ○ df.iloc[0,1]

✓ **Correct**
correct

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10. What function would you use to load a csv file in Pandas?   1 / 1 point

- ⦿ pd.read_csv
- ○ pd.read_excel

✓ **Correct**
correct