

Assignment (Data Types)

2014CS150

14001502

SCS2110

Programming Language concepts.

Question

What are the outputs of the following PHP code and Python code? Explain why you get this output.

```
<?php
```

```
# PHP program  
$x = (False or 123);  
echo $x;
```

```
?>
```

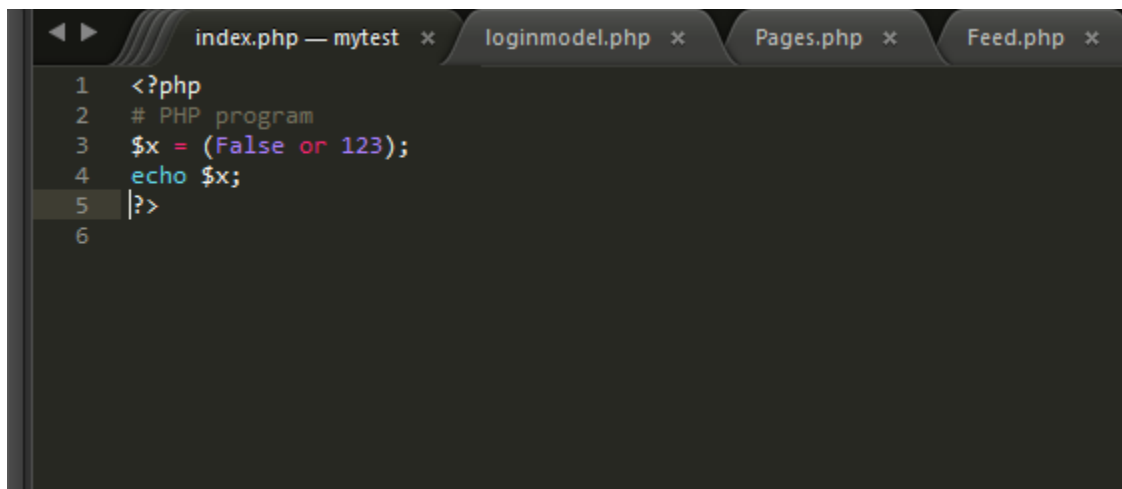
```
#python code
```

```
x= (False or 123)
```

```
print(x)
```

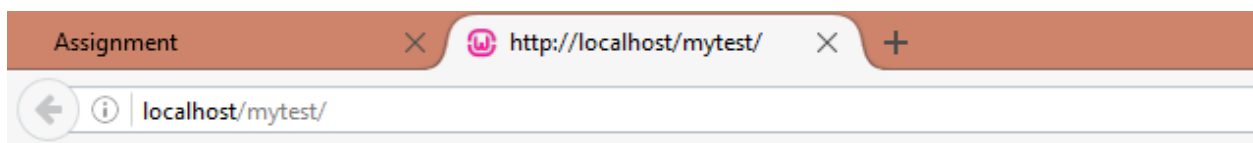
Answers

PHP code.



```
1 <?php
2 # PHP program
3 $x = (False or 123);
4 echo $x;
5 |?>
6
```

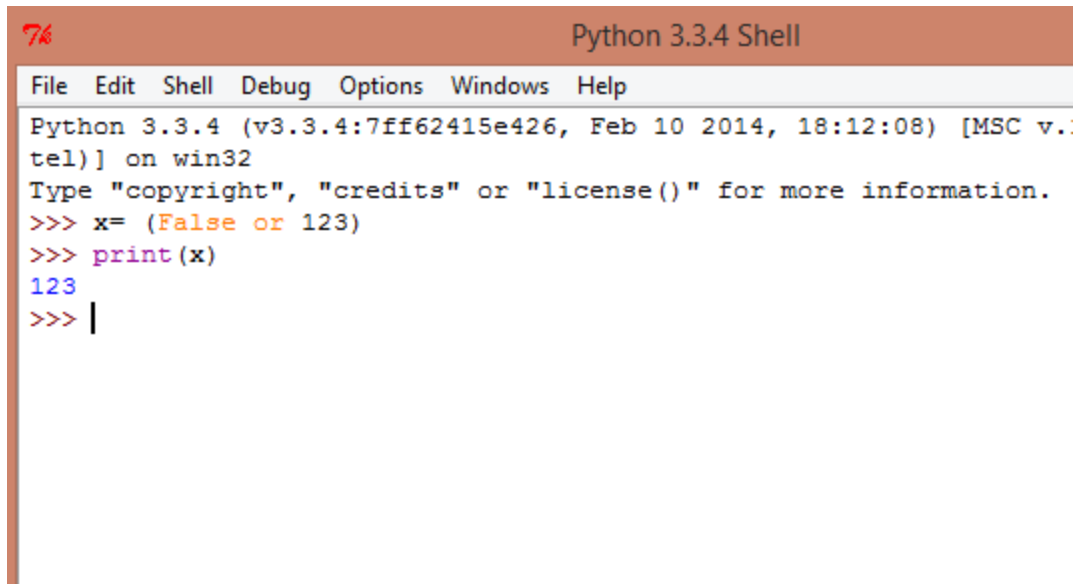
Output



1

In PHP "or" operator looks for a true value and if a true value received it out puts the Boolean value of true. First operand is False and therefore "or" operator checks for other operands and as the value is 123 as it is true value it returns value of the true which is 1. In PHP, number and a string is referred to Boolean True and therefore this "or" operator returns true by evaluating (False or 123). As PHP depicts Boolean True as 1 it echoes 1 in the webpage.

Python code

A screenshot of a Python 3.3.4 Shell window. The title bar is orange and says "Python 3.3.4 Shell". Below it is a menu bar with "File", "Edit", "Shell", "Debug", "Options", "Windows", and "Help". The main text area shows the following: "Python 3.3.4 (v3.3.4:7ff62415e426, Feb 10 2014, 18:12:08) [MSC v.61000 64-bit (AMD64)] on win32", "Type \"copyright\", \"credits\" or \"license()\" for more information.", and a prompt ">>>". The user has entered "x= (False or 123)" and "print(x)". The output "123" is shown. The prompt ">>>|" is at the bottom.

```
Python 3.3.4 (v3.3.4:7ff62415e426, Feb 10 2014, 18:12:08) [MSC v.61000 64-bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> x= (False or 123)
>>> print(x)
123
>>> |
```

In python “or” is a short circuit operator which facilitate fast executing. In the above assignment “x= (False or 123)”, “or” operator finish its evaluation as soon as it gets a non-false value and return that value. As first operand is False “or” operator checks for the other operands. As there is one other operand (123) and python return 123 as the output of (False or 123) and it is assigned to the x and when printing x it prints 123.