

Think Python: Chapters 4-5 Review

What's the name of the % operator?

What's the name of the % operator?

Modulus

What's the value of the expression below?

```
>>> 26%4
```

What's the value of the expression below?

```
>>> 26%4
```

```
>>> 26%4
```

```
2
```

```
>>>
```

What are Python's six relational operators?

What are Python's six relational operators?

==

!=

>

<

>=

<=

What is output by the code below?

```
>>> a=true
```


What is output by the code below?

```
>>> a=true
```

```
>>> a=true
```

```
Traceback (most recent call last):
```

```
  File "<stdin>", line 1, in <module>
```

```
NameError: name 'true' is not defined
```

```
>>>
```

What are Python's three logical operators?

What are Python's three logical operators?

and

or

not

What is the name for a function that is associated with an object?

What is the name for a function that is associated with an object?

method

What is output by the code below?

```
>>> for num in range(25):  
...     print(str(num) + " % 25 = " + str(num%25))  
...
```

What is output by the code below?

```
>>> for num in range(25):  
...     print(str(num) + " % 25 = " + str(num%25))  
...
```

0 % 25 = 0

1 % 25 = 1

2 % 25 = 2

3 % 25 = 3

4 % 25 = 4

...

23 % 25 = 23

24 % 25 = 24

How can you use just two commands in the Python shell (or IDLE) to discover the other name for the turtle module's *t* method?

How can you use just two commands in the Python shell (or IDLE) to discover the other name for the turtle module's *lt* method?

```
>>> import turtle  
>>> help(turtle.lt)
```

What is the name for wrapping a piece of code up in a function or method?

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encapsulation

What is the name for adding a parameter to a function to make it more generally useful?

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generalization

What are two names for mystery as it is used in the code below?

```
>>> mystery = """This function takes two arguments--one's height in  
inches and one's weight in pounds. It then outputs the BMI (Body  
Mass Index) corresponding to that height and weight, along with one  
of four ratings: Underweight, Normal Weight, Overweight, or  
Obesity."""  
>>>
```

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of four ratings: Underweight, Normal Weight, Overweight, or  
Obesity."""  
>>>
```

Multiline string

Triple-quoted string

What is the term for a line of code like the second line below?

```
>>> def bmi(height,weight):  
...     """This function takes two arguments--one's height  
in inches and one's weight in pounds. It then outputs  
the BMI (Body Mass Index) corresponding to that height  
and weight, along with one of four ratings: Underweight,  
Normal Weight, Overweight, or Obesity."""
```


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```
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...     """This function takes two arguments--one's height  
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the BMI (Body Mass Index) corresponding to that height  
and weight, along with one of four ratings: Underweight,  
Normal Weight, Overweight, or Obesity."""
```

Docstring (short for “document string”)

What's a precondition?

What's a precondition?

A requirement that is supposed to be true before a function is called.

What's a postcondition?

What's a postcondition?

A requirement that must be true after a function has been called and finished executing.

How could one use *keyword arguments* to call a function with this header?

```
def bmi(height,weight):
```

How could one use *keyword arguments* to call a function with this header?

```
def bmi(height,weight):
```

```
bmi(height=67.75,weight=155)
```

What does it mean to *refactor* one's code?

What does it mean to *refactor* one's code?

Rewrite/rearrange it to improve it.

What's the name of the operator below?

```
>>> 151//3
```

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```
>>> 151//3
```

Floor division

What is the value of the following expression?

```
>>> 151//3
```

What is the value of the following expression?

```
>>> 151//3
```

```
>>> 151//3
```

```
50
```

```
>>>
```

What is the value of the following expression?

```
>>> 151/3
```

What is the value of the following expression?

```
>>> 151/3
```

```
>>> 151/3
```

```
50.333333333333336
```

```
>>>
```

What is name of expressions that evaluate to True or False in Python?

What is name of expressions that evaluate to True or False in Python?

Boolean expressions

What's the diff between the two lines of code below?

```
>>> a=15
```

```
>>> a==16
```

What's the diff between the two lines of code below?

```
>>> a=15  
>>> a==16
```

The first one is an assignment statement that changes the value of variable *a* to 15.

The second one is a Boolean expression that evaluates to *False*.

What reserved word can be used as a do-nothing statement when one has to have a statement as a placekeeper in one's code?

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`pass`

Example:

```
if (bmi >= 30):  
    pass
```

What line of code would ask the user what day it was and store the answer in a variable?

What line of code would ask the user what day it was and store the answer in a variable?

```
answer = input("What day of the week is today?")
```

What is Python's abbreviation for *else if* in chained conditional statements?

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elif