

## ✓ Congratulations! You passed!

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1. Complete the function by filling in the missing parts. The `color_translator` function receives the name of a color, then prints its hexadecimal value. Currently, it only supports the three additive primary colors (red, green, blue), so it returns "unknown" for all other colors.

1 / 1 point

```
1 def color_translator(color):
2     if color == "red":
3         hex_color = "#ff0000"
4     elif color == "green":
5         hex_color = "#00ff00"
6     elif color == "blue":
7         hex_color = "#0000ff"
8     else:
9         hex_color = "unknown"
10    return hex_color
11
12    print(color_translator("blue")) # Should be #0000ff
13    print(color_translator("yellow")) # Should be unknown
14    print(color_translator("red")) # Should be #ff0000
15    print(color_translator("black")) # Should be unknown
16    print(color_translator("green")) # Should be #00ff00
17    print(color_translator("")) # Should be unknown
```

Run

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✓ Correct

Well done! You're breezing through the if-else clauses!

2. What's the value of this Python expression: "big" > "small"

1 / 1 point

- ☐ True
- ☒ False
- ☐ big
- ☐ small

✓ Correct

You nailed it! The conditional operator `>` checks if two values are equal. The result of that operation is a boolean: either True or False. Alphabetically, "big" is less than "small".

3. What is the `elif` keyword used for?

1 / 1 point

- ☐ To mark the end of the if statement
- ☒ To handle more than two comparison cases
- ☐ To replace the "or" clause in the if statement
- ☐ Nothing - it's a misspelling of the else-if keyword

✓ Correct

You got it! The `elif` keyword is used in place of multiple embedded if clauses, when a single if/else structure is not enough.

4. Students in a class receive their grades as Pass/Fail. Scores of 60 or more (out of 100) mean that the grade is "Pass". For lower scores, the grade is "Fail". In addition, scores above 95 (not included) are graded as "Top Score". Fill in this function so that it returns the proper grade.

1 / 1 point

```
1 def exam_grade(score):
2     if score > 95:
3         grade = "Top Score"
4     elif score >= 60:
5         grade = "Pass"
6     else:
7         grade = "Fail"
8     return grade
9
10    print(exam_grade(65)) # Should be Pass
11    print(exam_grade(55)) # Should be Fail
12    print(exam_grade(60)) # Should be Pass
13    print(exam_grade(95)) # Should be Pass
14    print(exam_grade(100)) # Should be Top Score
15    print(exam_grade(0)) # Should be Fail
```

Run

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Good job! You're getting the hang of it!

5. What's the value of this Python expression: `11 % 5`?

1 / 1 point

- ☐ 2.2
- ☐ 2
- ☒ 1
- ☐ 0

✓ Correct

Excellent! "%" is the modulo operator, which returns the remainder of the integer division between two numbers. 11 divided by 5 equals 2 with remainder of 1.

6. Complete the body of the `format_name` function. This function receives the `first_name` and `last_name` parameters and then returns a properly formatted string.

1 / 1 point

Specifically:

If both the `last_name` and the `first_name` parameters are supplied, the function should return like so:

```
1 print(format_name("Ella", "Fitzgerald"))
2 Name: Fitzgerald, Ella
```

If only **one** name parameter is supplied (either the first name *or* the last name), the function should return like so:

```
1 print(format_name("Adele", ""))
2 Name: Adele
```

or

```
1 print(format_name("", "Einstein"))
2 Name: Einstein
```

Finally, if both names are blank, the function should return the empty string:

```
1 print(format_name("", ""))
2
```

Implement below:

```
1 def format_name(first_name, last_name):
2     if first_name == "" and last_name != "":
3         string = "Name: " + last_name
4     elif last_name == "" and first_name != "":
5         string = "Name: " + first_name
6     elif first_name == "" and last_name == "":
7         string = ""
8     else:
9         string = "Name: " + last_name + ", " + first_name
10
11     return string
12
13 print(format_name("Ernest", "Hemingway"))
14 # Should return the string "Name: Hemingway, Ernest"
15
16 print(format_name("", "Madonna"))
17 # Should return the string "Name: Madonna"
18
19 print(format_name("Voltaire", ""))
20 # Should return the string "Name: Voltaire"
21
22 print(format_name("", ""))
23 # Should return an empty string
```

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Awesome! You're getting the hang of the multiple and embedded "if" clauses!

7. The `longest_word` function is used to compare 3 words. It should return the word with the most number of characters (and the first in the list when they have the same length). Fill in the blank to make this happen.

1 / 1 point

```
1 def longest_word(word1, word2, word3):
2     if len(word1) >= len(word2) and len(word1) >= len(word3):
3         word = word1
4     elif len(word2) > len(word1) and len(word2) > len(word3):
5         word = word2
6     else:
7         word = word3
8     return(word)
9
10 print(longest_word("chair", "couch", "table"))
11 print(longest_word("bed", "bath", "beyond"))
12 print(longest_word("laptop", "notebook", "desktop"))
```

Run

✓ Correct

You got it! You've figured out how to use an elif clause, well done!

8. What's the output of this code?

1 / 1 point

```
1 def sum(x, y):
2     return(x+y)
3 print(sum(sum(1,2), sum(3,4)))
```

10

✓ Correct

You nailed it! We're calling the sum function 3 times: returning 3, then 7, then adding up 3 plus 7 for the total of 10.

9. What's the value of this Python expression?

1 / 1 point

((10 >= 5\*2) and (10 <= 5\*2))

- ☒ True
- ☐ False
- ☐ 10
- ☐ 5\*2

✓ Correct

Right on! When using the "and" operator, a statement is True if both parts of the conditional are True.

10. The fractional\_part function divides the numerator by the denominator, and returns just the fractional part (a number between 0 and 1). Complete the body of the function so that it returns the right number.

1 / 1 point

Note: Since division by 0 produces an error, if the denominator is 0, the function should return 0 instead of attempting the division.

```
1 def fractional_part(numerator, denominator):
2     if denominator != 0:
3         rem = numerator % denominator
4         frac = rem / denominator
5         return frac
6     else:
7         return 0
8     # Operate with numerator and denominator to
9     # keep just the fractional part of the quotient
10
11
12 print(fractional_part(5, 5)) # Should be 0
13 print(fractional_part(5, 4)) # Should be 0.25
14 print(fractional_part(5, 3)) # Should be 0.66...
15 print(fractional_part(5, 2)) # Should be 0.5
16 print(fractional_part(5, 0)) # Should be 0
17 print(fractional_part(0, 5)) # Should be 0
```

Run

Reset

✓ Correct

Well done! You're handling the math operations, as well as division by 0, perfectly!