

\*Tags: [Conditionals](#), [Nesting Conditionals](#)

## More on Conditionals

### Indentation Tangent

```
#INVALID INDENTATION!!
# mood = 'devestated'

# if mood == 'happy':
#     print("I'm happy you are happy!")
#     print(":) " * 10)
# elif mood == 'sad':
#     print("I'm sorry that sucks :( ")
# else:
#     print("I dont know that mood!")

# Valid Indentation
mood = 'devestated'

if mood == 'happy':
    print("I'm happy you are happy!")
    print(":) " * 10)
elif mood == 'sad':
    print("I'm sorry that sucks :( ")
else:
    print("I dont know that mood!")
```

`elif` and `else` MUST be on same indentation level as their `if`

- indentation much be aligned in general code block:

```
if score <= 0:
    print("Game over!")
    answer = input("play again?")

# Python will give us a "IndentationError: unexpected indent" when we run this
code. We need to outdent line 3 to match the indentation of line 2.
```

### Nesting Conditionals

- must use indentation properly for logic hierarchy

```
fav_color = "green"
fav_movie = "amadeus"
```

```

fav_food = "pizza"

if fav_color == "green":
    print("I love green too!")
    if fav_movie == "amadeus":
        print("I love Amadeus too!")
        if fav_food == "pasta":
            print("I love pasta too!")

```

## Water Boiling Example

```

unit = input("What unit are you using? ")
temp = int(input("What temperature is the water? "))

if unit == 'f':
    if temp == 212:
        print("WATER IS BOILING!")
    else:
        print("WATER IS NOT BOILING.  MUST HIT 212F")
elif unit == 'c':
    if temp == 100:
        print("WATER IS BOILING!")
    else:
        print("WATER IS NOT BOILING.  MUST HIT 100C")
elif unit == 'k':
    if temp == 373:
        print("WATER IS BOILING!")
    else:
        print("WATER IS NOT BOILING.  MUST HIT 373K")
else:
    print("I don't know those units, sorry!!")

# f - 212
# c - 100
# k - 373

```

## BMI Exercise

```

height = float(input("What is your height (in inches): "))
weight = float(input("What is your weight (in lbs): "))
bmi = weight * 703 / height ** 2
bmi = round(bmi, 1)
if bmi < 16:
    category = "Severely Underweight"
elif bmi < 18.4:

```

```
    category = "Underweight"
elif bmi < 24.9:
    category = "Normal"
elif bmi < 29.9:
    category = "Overweight"
elif bmi < 34.9:
    category = "Moderately Obese"
elif bmi < 39.9:
    category = "Severely Obese"
else:
    category = "Morbidly Obese"

print(f"Your BMI of {bmi} makes you {category}")
```