elif

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Python

Review this if statement

```
if(1 == 2){
    System.out.println("They equal")
}
else{
    System.out.println("They not equal")
}
```

Only one of these 2 conditions happen.
What if we want to also check a third condition?

Else if

In Java/C++, **else if** is fully written out.

In Python, we shorthand it to be **elif**

```python
if 1 == 2:
    print("First condition true")
elif 2 == 3:
    print("Second condition true")
else:
    print("First and second are false")
```

Elif

You can have as many as you want!

```python
if 1 == 2:
    print("First condition true")
elif 2 == 3:
    print("Second condition true")
elif 3 == 4:
    print("Third condition true")
elif 4 == 5:
    print("Fourth condition true")
else:
    print("All conditions are false")
```

Review 1812 lab

```
year = input("what year was the war of 1812?")
if(year == "1812"):
        print("u r correct")
elif(year == "1813"):
        print("u r one 2 many")
elif(year = "1811"):
        print("one short")
else:
        print("not close, sorry")
```

Note: only one block of code gets executed with this structure

Note: always put an else with this structure to guarantee one and only block of code gets executed in the if statement

Lab: elif

Write a calculator app!

1. It takes **2 integer inputs**
2. It takes a **String** symbol that is an operator
3. It can do addition, subtraction, multiplication, and division

Example output:

    Please enter a number: 3

    Please enter an operation: -

    Please enter another number: 4

    3 - 4 = -1