

## Week 1 Homework

We've learned about the three sets of operators used in Python: arithmetic, logical, and comparison. This will come in handy now, because Ada needs our help sorting through her lab materials. What to Do Create a new file called `adas-materials-report` and save it. Then, declare the following variables:

```
beakers = 20
tubes = 30
rubber_gloves = 10
safety_glasses = 4
```

Ada has three friends coming to her lab to help her out, so you'll need to determine if there are enough materials for each friend. To safely run some experiments, each friend needs to have:

```
1 pair of safety glasses
2 rubber gloves
5 beakers
10 tubes
```

Knowing this, create new variables to hold a Boolean value (True or False) determining if there are enough items for all the scientists:

```
enough_safety_glasses = <Write some code here!> enough_rubber_gloves = <Write
some code here!> enough_tubes = <Write some code here!>
enough_beakers = <Write some code here!>
```

In the placeholders that say `<Write some code here!>` , write code that uses different arithmetic operators to first figure out if each friend will receive the proper amount of materials. Next, combine that code with some comparison operators to result in either a True or False answer. This will be the Boolean you assign to your "enough lab materials"

variables.

Finally, once you have Booleans assigned to your variables, use them with logical operators to determine the following scenarios:

- There are enough gloves and safety glasses for each girl.
- There are enough tubes or enough beakers for each girl.
- Each girl has enough safety glasses and beakers or enough tubes and beakers.
- Each girl has enough gloves, safety glasses, tubes, and beakers.

For example, in the first scenario, “There are enough gloves and safety glasses for each girl,” we can use the `enoughrubbergloves` and `enoughsafetyglasses` variables for comparison with the `and` operator to check for the scenario’s conditions.

Put all of this information together in a `final_report` variable:

```
final_report = f'''
Here is the final report for lab materials:
Each girl has enough safety glasses: {add the right variable here}
Each girl has enough rubber gloves: {add the right variable here}
Each girl has enough tubes: {add the right variable here}
Each girl has enough beakers: {add the right variable here}

There are enough gloves and safety glasses for each girl: {write some code
here}
There are enough tubes and or enough beakers for each girl: {write some code
here}
Each girl has enough safety glasses and beakers or enough tubes and beakers:
{write some code here}
Each girl has enough gloves, safety glasses, tubes, and beakers: {write some
code here}
'''
```

Use this variable in your `print()` function (be sure to fill in the blanks with the information you figured out above) to see the results!

