**Answer the following questions with your teammates.**

1) How does typecasting affect different types? (Consider int/str/float.) Do you notice any patterns or similarities?

All ints, and floats can become strings, all floats can become ints and all ints can become floats. Only strings that look like ints can become ints, and only strings that look like floats can become floats.

2) What happens when you try to perform mathematical operations (+, -, \*, /) using two different types? Give three examples (using both the same and different types) that have three different outcomes, and explain the outcomes in English.

Adding/subtracting an int to itself or a float to itself results in an int or a float respectively. Adding/subtracting/dividing/multiplying an int with a float results in a float. Adding a string to itself results in a string (it concatenates two strings), and adding a string to either a float or an int results in a TypeError. Strings cannot be subtracted, or divided but multiplication by an integer results in duplication and concatenation.

3) What did you notice about the errors in the “Errors & Scope” section? Were there any patterns or things that stood out?

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4) A common pattern that you will see in python code are lines that look something like:

print(len("here is a string!"))

or

print(max(10, -3, 99, 4.5))

Explain how this code works and what is happening with both function calls. How would you translate these two pieces of code into multi-line code programs?

5) As a group, write a code snippet that asks a user for some numbers, performs a simple calculation, and gives the output. An example (you will have to do something different than this) is to ask for three people’s heights and outputs the average height. You can use JupyterLab to write and test your code, then transcribe it here.