# CS 104 MSG Activity 1:
## Variables & Data Types
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February 3, 2025

**Exercise 1.**

How would you define the term *variable*?

**Exercise 2.**

What does the memory look like after the following code runs?

```
int i = 32;
int j = 2;
int k = i + j;
int l = i * j;
```

**Exercise 3.**

Complete the right side of the list:

| Data Type | Represents |
|:---:|:---:|
| int | |
| float | |
| double | |
| char | |
| boolean | |
| String | |

Table 1: Data Types and What They Represent

**Exercise 4.**

What will the following code output? What will the memory look like after execution?

```
int i = 12;
int j = 7;
println(3 * x);
int k = i + j - 2;
println(k);

int l = 3;
println(l / 2);
```

**Exercise 5.**

Solve the following:

15 % 5 =　　　　　　　8 % 3 =　　　　　　　3 % 2 =　　　　　　　12 % 15 =