In this activity we will learn how to "run" pseudocode.

I'm going to ask for volunteers to represent each variable, and a volunteer to be the "code runner" who reads the code and tells the variables what to do. We also need one volunteer to be the printer, who will write on the whiteboard anything that is printed.

assignment

```
x = 1
y = 2
z = x + y
x = 2
print('z is', z)
```

if statement

```
x = 1
y = 2
if x == y:
    print('good news')
else:
    print('bad news')
```

while loop

```
volume = 13
while volume > 10:
    print('volume is still too big')
    volume = volume - 1
print('volume is', volume)
```

for loop

```
for length in integer values starting with 1 and ending with 5:
    if length*(length-1) == 6:
        print('The answer is', length)
print('The last length is', length)
```

mystery 1

```
n = 15
for i in integers starting with 2 and less than n:
    if n/i is an integer:
        print(i)
```

What did we do? What would we see if we chose `n = 16`?

mystery 2

```
n = 16
while n > 1:
    print('about to start the for loop')
    for i in integers starting with 2 and less than or equal to n:
        if n/i is an integer:
            print(i)
            n = n/i
    print('done with the for loop!')
print('all done!')
```

What did we do? Would this work for any value of n?