

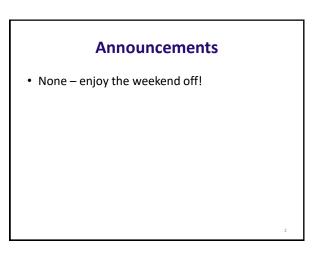
# break and continue Keywords

**break** – immediately terminate a loop (breaks out of loop)

continue - ends the current iteration and goes to the end of the loop body (breaks out of iteration) Note: Typically used with while loops, but can be used in a for loop as well.

#### Do not overuse!

Can make code difficult to read and debug!



## Using break

#This program will add integers from #1 to 20 in this order to total, until #total is greater than or equal to 100.

```
total = 0
number = 0
```

```
while number < 20:
    number += 1
    total += number
    if total >= 100:
        break
```

```
print("The number is", number)
print("The total is", total)
```

### Using continue

#This program will add integers from #1 to 20 in this order to total, #except for 10 and 11

total = 0number = 0

while number < 20: number += 1 if number == 10 or number == 11: <u>continue</u> total += number

print("The total is", total)

## **Using Boolean Variables in Loops**

Given a positive integer  $\,n,$  assign True to  $\,prime$  if n has no factors other than 1 and itself.

If at any time during the loop, you find a factor of n other than 1 or n, set value of prime to False and break out of the loop

(Remember, m is a factor of n if m divides n evenly.)

