

COMP 141

break and continue



1

Announcements

- None – enjoy the weekend off!

2

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!

3

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)
```

4

Using continue

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

```
total = 0
number = 0

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

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

5

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.)

6

Equivalent Code

```
total_scores = 0
score = int(input("Score? "))
while score != 0:
    total_scores = total_scores + score
    score = int(input("Score? "))
print("the total is", total_scores)
```

```
total_scores = 0
while True:
    score = int(input("Score? "))
    if score == 0:
        break
    total_scores = total_scores + score
print("the total is", total_scores)
```

7

In-Class Lab

8