

COMP 141

break and continue



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Announcements

- None – enjoy the weekend off!

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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!

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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)
```

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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)
```

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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.)

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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)
```

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In-Class Lab

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