Lab 4 Feedback

- Better overall
- Took off for insufficient testing, comments
- Overuse of `sys.exit()`
  - Typically, reserved for "unusual" exiting from program
    - E.g., invalid weights and heights for BMI calculation
    - E.g., incorrect use of program (later this semester)
  - Inside of a loop, use `break` instead

BMI problem

- Compute BMI as a float
  - Why is that important?
- Check valid height, weight before computing BMI
  - Don't waste time computing if they are invalid
- Most elegant if/else condition:

```python
if bmi < 19:
    print "below"
elif bmi > 25:
    print "above"
else:
    print "in range"
```

As opposed to

```python
if bmi >= 19 and bmi <= 25:
    print "in range"
elif bmi > 25:
    print "above"
else:
    print "below"
```

Both are correct

Partial Student Solution

```python
TOO_HEAVY = 400
TOO_LIGHT = 60
TOO_TALL = 64 # 7ft
TOO_SHORT = 36 # 3 ft
LOW_BMI = 19
HIGH_BMI = 25

print "Do you know your BMI? You should!\n"
height = input ("How tall are you in inches? ")
# Check for unreasonable input, exit if unreasonable
if height <= TOO_SHORT:
    print "You can't be that short!"
sys.exit()
elif height >= TOO_TALL:
    print "You can't be that tall!"
sys.exit()
else:
    print "Okay!"

height = float (height)
weight = input("What is your weight in pounds? ")
BMI = weight / (height/12)**2

print "Your BMI is: "
print BMI
```

- Well-named constants
  - Easy to change values
  - Also explained values (e.g., 7ft)
- Checks before user enters weight; less work for user

Lab 4 Feedback

- Problem 5, if number is divisible by 6
  - Prefer `while num % 6 != 0`
    - to `while not (num % 6 == 0)`:
  - Separate blocks of code with spaces and comments
  - More important as we write larger programs
  - Especially with graphics programs

Rainbow Dice

- Student’s implementation
  - Much more than what I was expecting

Lab 5 Overview

- Practice Python programming
  - More practice with Graphics API and animation
    - Screen capture using `xv` tool
    - Create a Web page to display artwork
  - String practice
  - Don’t spend too much time on creating your picture
    - After get good draft, start on the string problems
    - Then go back and perfect your artwork