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Constants

Constants are really variables that represent quantities that don't change while the program is running. Variables, on the other hand, often do change. Constants are written in a special way so that programmers know that they will not change. For example, consider this program which can tell you the number of seconds in a given number of minutes:

```
"""
File: constants.py
An example program with constants
"""

# an example of defining a constant
SECONDS_PER_MIN = 60

def main():
    mins = float(input("Enter number of minutes: "))
    # an example of using the constant
    seconds = mins * SECONDS_PER_MIN
    print("That is", seconds, "seconds!")
```

In this example, the programmer has chosen to define a constant for the number of seconds in a minute. Constants make the program more readable which is important for programming style.

Constants can be changed between runs (as necessary) and your code should be written with constants in a general way, so that it still works when constants are changed.

Defining Constants

Define constants using an expression with the constant name, followed by the `=` equals sign, followed by the value. Constants can be any type. By convention constants are written in UPPER_SNAKE_CASE and are defined before the main function. Note that for great style we only define constants before the main functions, not variables! Here are a few examples

```
"""
These constants don't change while the program is running
"""

MY_FAVORITE_NUMBER = 5
COURSE_URL = 'http://codeinplace.stanford.edu/course'
GOLDEN_RATIO = 1.61803398875 # https://en.wikipedia.org/wiki/Golden_ratio

def main():
    # code that uses the constants
    ...
```