

Exercise 1

Implement the “thousands_with_commas” function, which should take an integer and return a string representation of that integer with commas separating groups of three digits. You can use the following skeleton for your program. It includes test cases to check your solution.

```
def thousands_with_commas(i):  
    return str(i)  
  
if __name__ == '__main__':  
  
    assert thousands_with_commas(1234) == '1,234'  
    assert thousands_with_commas(123456789) == '123,456,789'  
    assert thousands_with_commas(12) == '12'
```

Exercise 2

A clerk works in a store where the cost of each item is a positive integer number of dollars. So, for example, something might cost \$21, but nothing costs \$9.99. In order to make change a clerk has an unbounded number of bills in each of the following denominations: \$1, \$2, \$5, \$10, and \$20. Write a function that takes two arguments, the cost of an item and the amount paid, and prints how to make change using the smallest possible number of bills.

Exercise 3

For statistical purposes, the average of a sample is usually computed by excluding the highest and lowest values on the sample, because those values are usually outliers. Write a function that takes as input a list of integers and returns the average such list without the lowest and highest values.