

Week 2: Iteration and Selection, Procedural Abstraction

Task 1

Read the task statement “Friday the Thirteenth” and see if you can solve it. When you’re done, upload your code to Github and I’ll run your solution through the USACO autograder and let you know how the code performed. Be careful about corner cases!

Task 2

Read the task statement “Palindromic Squares” and see if you can solve it. When you’re done, upload your code to Github and I’ll run your solution through the USACO autograder and let you know how the code performed.

If you’re not sure about how to convert from base 10 to base B, we can review an example here:

Suppose we want to convert 12345 in base 10 to base 17. We perform the following sequence of divisions:

$$12345 / 17 = 726 \text{ remainder } 3$$

$$726 / 17 = 42 \text{ remainder } 12$$

$$42 / 17 = 2 \text{ remainder } 8$$

$$2 / 17 = 0 \text{ remainder } 2$$

And we concatenate the remainders from bottom to top, so 12345 in base 10 is 28C3 base 17 (C is the digit 12 in base 17).