

In-Section Exercises Sample Solutions - Week 3

CS50 — Fall 2012

Prepared by: Doug Lloyd '09

October 1, 2012

```
1. int collatz(int num) {
    if(num <= 0)
        return -1;

    if(num == 1)
        return 1;
    else if(num % 2)
        return 1 + collatz(3*num + 1);
    else
        return 1 + collatz(num/2);
}

2. void alphabet(char x) {
    if(x != 'A')
        alphabet(x - 1);
    printf("%c", x);
    return;
}
```