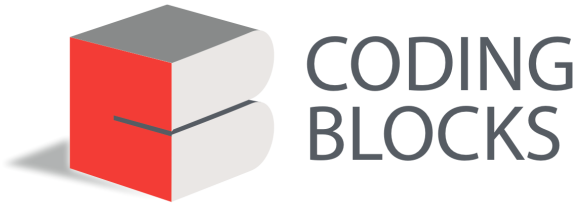

2A: Programming Fundamentals

Batch Crux (Java Foundation)

1. Write a program that asks the user for a number n and gives him the possibility to choose between computing the sum and computing the product of 1,...,n.
2. Write a program to input a number and print the sum of all it's even digits and sum of all its odd digits; separately.
3. Write a program to find x^n. Take x and n from the user.
4. Write a program to generate the reverse of a given number.
5. Write a program to print first 20 terms of the series 3n+2 which are not multiples of 4.
6. Given a binary number convert it into decimal.
7. Given a decimal convert it into binary.
8. Write a program to find square root of an input.
    a. Just find the integral part
    b. Find the square root with an accuracy of n decimal points, n is provided by the user.
9. You are given S a sequence of n integers S = s_1, s_2, ..., s_n. Please, compute if it is possible to split S into two parts: s_1, s_2, ..., $s_i$and s_{i+1}, s_{i+2}, ..., s_n (1 <= i < n) in such a way that the first part is strictly decreasing while the second is strictly increasing one. First take n as input and then take n more integers, Output yes or no.