

Object Oriented Programming with Java Lab
Day 4 Assignment

[The following assignment is from Decision Making and Looping]

1. a. Write a program to print the following Sequence:
1 1 2 3 5 8 13 21.....

b. Write a program to evaluate the following investment equation:
$$V = P(1+r)^n$$

Print the tables which would give the value of V for various combination of the following values P, r, n

P: 1000, 2000, 3000,, 10,000
r: 0.10, 0.11, 0.12,, 0.20
n: 1, 2, 3,, 10
(Hint: P is the principle amount and V is the value of money at the end of n years)
2. a. Write a program to print the following pattern
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

b. Write a program that asks the user to enter two numbers. The numbers should be added and the sum displayed. The program should ask the user whether he or she wishes to perform the operation again. If so, the program should repeat; otherwise it should terminate.
3. a. Write a program to calculate the sum of following series where n is input by user.
 $1 + 1/2 + 1/3 + 1/4 + 1/5 + \dots + 1/n$

b. Write a program to calculate the sum of following series up to n terms in the series
 $1 - 1/2 + 1/3 - 1/4 + 1/5 - \dots + 1/n$
where n is a positive integer and input by user.