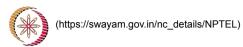
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reviewer4@nptel.iitm.ac.in ~

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » An Introduction To Programming Through C++ (course)

Announcements (announcements)

About the Course (https://swayam.gov.in/nd1\_noc20\_cs53/preview) Ask a Question (forum)

Progress (student/home) Mentor (student/mentor)

## Course outline

How does an NPTEL online course work?

Week 0

Week 1

## Week 2

- Lecture 3 Part1 : BasicElements ofProgram (unit?unit=27&lesson=37)
- Lecture 3 Part
  2: Basic
  Elements of
  Program (unit?
  unit=27&lesson=38)
- Decture 3 Part
  3: Basic
  Elements of
  Program (unit?
  unit=27&lesson=39)

## Week 2 Programming Assignment 2

Due on 2020-02-12, 23:59 IST

Solve problem 5 of chapter 4.

As input, you are given an integer n, a double x, followed by n+1 doubles a\_n, a\_{n-1}, ..., a\_0. You are to print the value of the polynomial a\_0 + a 1x+a 2x^2+...+a nx^n.

Here is the manual algorithm. At the beginning you just have read a\_n. Next you read a\_ $\{n-1\}$  and calculate a\_nx+a\_ $\{n-1\}$ . Next you read a\_ $\{n-2\}$  and calculate (a\_nx+a\_ $\{n-1\}$ )x+a\_ $\{n-2\}$ . So after n iterations you will have the value of the polynomial above. Note that in each iteration you need to use the values calculated earlier.

Check that you understand the method by calculating manually for small values of n. This is not to be submitted, nor put in a program.

Write the program. You will need to decide what variables to use, what to store in them. Test your program as much as you can before submitting it.

## Sample Test Cases

Input		Output	
Test Case 1	4 3 2 3 4 5 6	300	
Test Case 2	2 3 3 2 1	34	

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

```
Sample solutions (Provided by instructor)
Lecture 3 Part
   4 : Basic
                                  #include <iostream>
                              123456789
                                 #define repeat(x) for(int _iterator_i = 0, _iterator_limit = x; _iterat
#define main_program int main()
#include <cmath>
   Elements of
   Program (unit?
                                 #Include <Cmath>
using namespace std;
main program{
  int n;
  double x;
  double poly=0, coeff=0;
   unit=27&lesson=40)
Lecture 4 Part
   1: Program
   Design (unit?
                             10
11
12
13
14
15
                                    cin >> n;
cin >> x;
   unit=27&lesson=42)
                                     repeat(n+1){
                                       cin >> coeff;
poly = poly*x + coeff;
O Lecture 4 Part
   2: Program
                                     cout << poly <<endl;
                             16
   Design (unit?
   unit=27&lesson=41)
O Lecture 4 Part
   3: Program
   Design (unit?
   unit=27&lesson=43)
Lecture 5 :
   Simple cpp
   Graphics (unit?
   unit=27&lesson=44)
Quiz: Week 2
   - Assignment 2
   (assessment?
   name=166)
Week 2
   Programming
   Assignments 1
   (/noc20 cs53/progassignment?
   name=168)
○ Week 2
   Programming
   Assignment 2
   (/noc20_cs53/progassignment?
   name=169)
Download
   Videos (unit?
   unit=27&lesson=178)
 Weekly
   Feedback
   (unit?
   unit=27&lesson=190)
Week 3
Week 4
Week 5
Week 6
Week 7
```

Week 8
Week 9
Week 10
Week 11
Week 12
Text Transcripts