

CIS 343 – Structure of Programming Languages
Fall 2013, 10/21/2013

Programming Assignment #4
Polynomial Class in Ruby
Due Date: Monday, November 4, 2013

Objectives

- Classes in Ruby
- Unit testing in Ruby

Problem Specification

Write a program in Ruby that implements the following operations on univariate polynomials:

- addition
- subtraction
- negation (of coefficients)
- multiplication
- traversal (of terms in a polynomial)
- evaluation
- derivation
- integration

Your program contains the following files:

1. `Term.rb`
 - Term class represents a term in a polynomial
 - Complete the methods included in this class
2. `Polynomial.rb`
 - Polynomial class represents a polynomial as an array of Term objects
 - Complete the methods included in this class
3. `PolynomialTest.rb`
 - Unit test file for Polynomial class
 - Add test case methods for methods of Polynomial class

Deliverables

1. **IMPORTANT: Upload these files on Blackboard**
 - **Term.rb**
 - **Polynomial.rb**
 - **PolynomialTest.rb**
2. I will use the submission date/time on Blackboard as your official submission date/time.
3. It is your responsibility to make sure your submission on Blackboard was successful.
4. **Late penalty (10% per day) applies after Monday, November 4th.**