**Lab Assignment #3**

1. Write a program to calculate the derivative using forward difference formula.
2. Write a program to calculate the derivative using backward difference formula.
3. Write a program to calculate the derivative using central difference formula.
4. Write a program to calculate the derivative using forward divided difference formula.
5. Write a program to calculate the derivative using backward divided difference formula.
6. Write a program to implement trapezoidal rule.
7. Write a program to implement composite trapezoidal rule.
8. Write a program to implement Simpson’s 1/3 rule .
9. Write a program to implement composite Simson’s 1/3 rule.
10. Write a program to implement Simpson’s 3/8 rule.
11. Write a program to implement composite Simson’s 3/8 rule.