Further Numeric Algorithms Solutions

partial_sum()

- (Optional) Describe what the partial_sum algorithm does
  - Populates an iterator range with the running sum of elements from another iterator range {a1, a1 + a2, a1 + a2 + a3, … }
- Suggest an situation in numerical computation where it could be applied
  - For performing numerical integration
- Write a simple program to demonstrate its use

adjacent_difference()

- (Optional) Describe what the adjacent_difference() algorithm does
  - Populates an iterator range with the difference of successive elements from another iterator range {a1, a2 - a1, a3 - a2, ... }
- Suggest an situation in numerical computation where it could be applied
  - For performing numerical differentiation
- Write a simple program to demonstrate its use

inner_product()

- (Optional) Describe what the inner_product() algorithm does
  - Multiplies the corresponding elements from two iterator ranges together, then calculates their sum

- Suggest an situation in numerical computation where it could be applied
  - Calculating the scalar product of two vectors

- Write a simple program to demonstrate its use