1001 CS106B 程式設計（一） Homework 8

1. Declare an array with length 10 named "ary" and initialize with random value (1~100), then:

   (a) Print the address of array pointer "ary"

   (b) Print the value of array pointer "ary"

   (c) Declare a pointer which point to 5th element of array, then assign value 200 by the pointer

   (d) Find the difference in (c) where the pointer declared as

   ```
   (1) int* ptr
   (2) const int* ptr
   (3) int* const ptr
   (4) const int* const ptr
   ```

2. Write a program doing polynomial operations (summation, subtraction, multiplication). The highest degree of polynomial is 50. Input and output format must follow the example as below:

   ```
   Input first polynomial:
   Input degree of first polynomial:3
   Input x^3:1
   Input x^2:3
   Input x^1:3
   Input x^0:1


   The first polynomial: x^3+3x^2+3x+1


   Input second polynomial:
   Input degree of second polynomial:1
   Input x^1:1
   Input x^0:1


   The second polynomial: x^1+1


   Result:
   Summation: x^3+3x^2+4x+2
   Subtraction: x^3+3x^2+2x
   Multiplication: x^4+4x^3+6x^2+4x+1
   ```