Csci 41 Intro. to Data Structures
Lab 2.5: C++ Reviews (pointers, references, vector)

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1. Introduce a call-by-value function that computes the volume of a box. Hint: Length, width, and height of a box is needed.
2. Introduce a call-by-reference function with void output. that computes the square of an integer. Please double check the value of the function input before and after function call.
3. Introduce a call-by-pointer function with void output. that computes the square of an integer. Please double check the value of the function input before and after function call.
4. Read/run the following code and see whether you can interpret/understand the results.

```
int a = 5; //assume that a is located at 1000. a's pointer is located at 5000
int &b = a;
a = 10;
cout<<&b<<endl;
int *c = &b;
cout<<c<<endl;
int** cPtrPtr = &c;
cout<<*c<<endl;
cout<<cPtrPtr<<endl;
int d = 20;
int* dPtr = &d;
int** dPtrPtr = &dPtr;
dPtr= *cPtrPtr;
cout<<*dPtr<<endl;
cout<<dPtrPtr<<endl;
cout <<d<<endl;
```

5. Introduce an integer vector. Then introduce a function to reverse this vector. (Do not use *reverse* library provided by C++.
6. Introduce an integer vector. Then introduce a function to check whether this vector is palindrome. If yes, please return true. If not, please return false.
7. Introduce a mirror function that could flip a two-dimensional vector from right to left (or left to right).