```
/* References vs. Pointers (TestReferenceVsPointer.cpp) */
#include <iostream>
using namespace std;

int main() {
   int number1 = 88, number2 = 22;

   // Create a pointer pointing to number1
   int * pNumber1 = &number1;  // Explicit referencing
   *pNumber1 = 99;             // Explicit dereferencing
   cout << "*pNumber1:" << *pNumber1<<endl;  // 99
   cout << "&number1:"<< &number1<<endl;   // 0x22ff18
   cout << "pNumber1:" << pNumber1<<endl;   // 0x22ff18 (content of the pointer variable - same as above)
   cout << "&pNumber1:"<<&pNumber1 << endl;  // 0x22ff10 (address of the pointer variable)
   pNumber1 = &number2;       // Pointer can be reassigned to store another address

   // Create a reference (alias) to number1
   int & refNumber1 = number1;  // Implicit referencing (NOT &number1)
   refNumber1 = 11;             // Implicit dereferencing (NOT *refNumber1)
   cout << "refNumber1:"<<refNumber1 << endl;  // 11
   cout << "&number1:"<<&number1 << endl;    // 0x22ff18
   cout << "&refNumber1:"<< &refNumber1 << endl; // 0x22ff18
   //refNumber1 = &number2;     // Error! Reference cannot be re-assigned
                              // error: invalid conversion from 'int*' to 'int'
   refNumber1 = number2;       // refNumber1 is still an alias to number1.
                              // Assign value of number2 (22) to refNumber1 (and number1).
   number2++;
   cout << "refNumber1:"<<refNumber1 << endl;  // 22
   cout << "number1:"<<number1 << endl;     // 22
   cout << "number2:"<<number2 << endl;     // 23
```

}