**Tutorial 5**

1. **Trace the following:**
2. int main ()

{

 int firstvalue = 5, secondvalue = 15;

 int \* p1, \* p2;

 p1 = &firstvalue;

 p2 = &secondvalue;

 \*p1 = 10;

 \*p2 = \*p1;

 p1 = p2;

 \*p1 = 20;

 cout << "firstvalue is " << firstvalue << endl;

 cout << "secondvalue is " << secondvalue << endl;

 return 0;

}

#include <iostream>

using namespace std;

int main ()

{

 int numbers[5];

 int \* p;

 p = numbers; \*p = 10;

 p++; \*p = 20;

 p = &numbers[2]; \*p = 30;

 p = numbers + 3; \*p = 40;

 p = numbers; \*(p+4) = 50;

 for (int n=0; n<5; n++)

 cout << numbers[n] << ", ";

 return 0;

}

#include <iostream>

using namespace std;

int main ()

{

 int anArray[5] = { 9, 7, 5, 3, 1 };

 cout << \*(anArray+1) << endl;

 system("pause");

 return 0;

}

1. #include <iostream>

using namespace std;

void Deposit(int s, int p);

int main()

{

 int shirts = 3, pants = 5;

 cout << "When starting, within main():\n";

 cout << "\tShirts = " << shirts << endl;

 cout << "\tPants = " << pants << endl;

 Deposit(Shirts, Pants);

 cout << "\n\nAfter calling Deposit(), within main():\n";

 cout << "\tShirts = " << shirts << endl;

 cout << "\tPants = " << pants << endl;

 cout << endl;

 return 0;

}

void Deposit(int s, int p)

{

 s = 8;

 p = 12;

 cout << "Within Deposit()" << "\n\tShirts = " << s << "\n\tPants = " << p;

}

1. **Find the errors:**

#include <iostream>

using namespace std;

int main(){

int nValue = 5;

double dValue = 7.0;

int \*pnPtr = &nValue; // ….

double \*pdPtr = &dValue; // ….

pnPtr = &dValue; // ……..

pdPtr = &nValue; //………

system("pause");

}

1. **Create a dynamic variable to the following class using the pointer then try to set the class members to 10 and ‘b’ respectively.**

class MyClass

{

public:

 int m\_Number;

 char m\_Character;

};

1. **Write the code fragment**
	1. Create pointer p to an array of string a
	2. How to access the first element of array using the pointer
	3. How to change the pointer address to be pointed to the second element of the array a.
2. **Write a code fragment**

 

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1. **Show the difference between the following programs:**

//Program l:

include <iostream>

using namespace std;

int \*pPointer;

void SomeFunction();

{

 int nNumber;

 nNumber = 25;

 pPointer = &nNumber;

}

void main()

{

 SomeFunction();

 Cout<<" Value of \*pPointer: "<< \*pPointer;

}

//program 2

include <iostream>

using namespace std;

int \*pPointer;

void SomeFunction()

{

 pPointer = new int;

 \*pPointer = 25;

}

void main()

{

 SomeFunction();

 Cout<<" Value of \*pPointer: "<< \*pPointer;

}