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| #include <iostream>  using namespace std;  int main ()  {  int firstvalue, secondvalue;  int \* mypointer;  mypointer = &firstvalue;  \*mypointer = 10;  mypointer = &secondvalue;  \*mypointer = 20;  cout << "firstvalue is " << firstvalue << '\n';  cout << "secondvalue is " << secondvalue << '\n';  return 0;  } |

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| #include <iostream>  using namespace std;  int main ()  {  int firstvalue = 5, secondvalue = 15;  int \* p1, \* p2;  p1 = &firstvalue; // p1 = address of firstvalue  p2 = &secondvalue; // p2 = address of secondvalue  \*p1 = 10; // value pointed to by p1 = 10  \*p2 = \*p1; // value pointed to by p2 = value pointed to by p1  p1 = p2; // p1 = p2 (value of pointer is copied)  \*p1 = 20; // value pointed to by p1 = 20    cout << "firstvalue is " << firstvalue << '\n';  cout << "secondvalue is " << secondvalue << '\n';  return 0;  } |

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| // more pointers  #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;  } |

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| // pointers as arguments:  #include <iostream>  using namespace std;  void increment\_all (int\* start, int\* stop)  {  int \* current = start;  while (current != stop) {  ++(\*current); // increment value pointed  ++current; // increment pointer  }  }  void print\_all (const int\* start, const int\* stop)  {  const int \* current = start;  while (current != stop) {  cout << \*current << '\n';  ++current; // increment pointer  }  }  int main ()  {  int numbers[] = {10,20,30};  increment\_all (numbers,numbers+3);  print\_all (numbers,numbers+3);  return 0;  } |