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1  /*
2  Write a program that declares an integer variable, assigns it a value, and
3  prints its memory address using a pointer.
4  Demonstrate how to increment, decrement, and compare pointers.
5  */
6  #include <iostream>
7  using namespace std;
8
9  int main() {
10     int a;
11     a = 10;
12     int* ptr = &a;
13     cout << "Memory address of a: " << ptr << endl;
14
15     // Incrementing pointer
16     ptr++;
17     cout << "After incrementing pointer: " << ptr << endl;
18
19     // Decrementing pointer
20     ptr--;
21     cout << "After decrementing pointer: " << ptr << endl;
22
23     // Comparing pointers
24     int* ptr1 = &a;
25     if (ptr == ptr1) {
26         cout << "Pointers are the same" << endl;
27     } else {
28         cout << "Pointers are different" << endl;
29     }
30
31     return 0;
32 }
33
```