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// This program demonstrates a unique_ptr pointing
// to a dynamically allocated array of integers.
#include <iostream>
#include <memory>
using namespace std;

int main()
{
    int max;    // Max size of the array

    // Get the number of values to store.
    cout << "How many numbers do you want to enter? ";
    cin >> max;

    // Define a unique_ptr smart pointer, pointing
    // to a dynamically allocated array of ints.
    unique_ptr<int[]> ptr( new int[max]);

    // Get values for the array.
    for (int index = 0; index < max; index++)
    {
        cout << "Enter an integer number: ";
        cin >> ptr[index];
    }

    // Display the values in the array.
    cout << "Here are the values you entered:\n";
    for (int index = 0; index < max; index++)
        cout << ptr[index] << endl;

    return 0;
}

```