

## Answer on Question #50915, Programming, C++

### Problem.

Write a program that allows a user to enter 10 floating-point values into an array. Then, in a loop, the program should prompt the user for a desired precision and subsequently display each value to the correct precision. The loop continues prompting for a precision and displaying the 10 values until the user enters a negative value for the precision. Save the file as PrecisionRequest.cpp.

### Code.

```
#include <iostream>
#include <cstdio>

using namespace std;

int main() {
    float arr[10];
    int precision;
    // Input
    cout << "Please enter 10 floating-point numbers: ";
    for (int i = 0; i < 10; i++) {
        cin >> arr[i];
    }

    do {
        // Reading precision
        cout << "Enter precision: ";
        cin >> precision;

        if (precision >= 0) {
            char format[4];
            sprintf(format, "%%.%df", precision);
            for (int i = 0; i < 10; i++) {
                printf(format, arr[i]);
                if (i != 9) {
                    printf(" ");
                } else {
                    printf("\n");
                }
            }
        }
    } while(precision >= 0);
}
```

### Output.

Please enter 10 floating-point numbers: 0 1 2 3 4 5 6 7 8 9

Enter precision: 1

0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0

Enter precision: 2

0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00

Enter precision: -1

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