



Code in C

```
// Return the computed Mean
// Inputs: Readings is an array of 16-bit temperature measurements
//      N is the number of elements in the array
// Output: Average of the data
// Notes: you do not need to implement rounding
int16_t Find_Mean(int16_t const Readings[],int32_t const N){
    int sum = 0;
    for (int i = 0; i < N; i++){
        sum += Readings[i];
    }
    int avg = (sum / N) ;
    return avg;
}
```

// Convert temperature in Farenheit to temperature in Centigrade

// Inputs: temperature in Farenheit

// Output: temperature in Centigrade

// Notes: you do not need to implement rounding

```
int16_t FtoC(int16_t const TinF){
```

```
    int C;
```

```
    C = ((TinF-32)*5)/9;
```

```
    return C;
```

```
}
```

// Return True of False based on whether the readings

// are an increasing monotonic series

// Inputs: Readings is an array of 16-bit temperature measurements

// N is the number of elements in the array

// Output: true if monotonic increasing, false if nonmonotonic

```
int IsMonotonic(int16_t const Readings[],int32_t const N){
```

```
    int i = 0;
```

```
    while (i < N-1) {
```

```
        if ( Readings[i] <= Readings[i+1]) {
```

```
            i = i + 1;
```

```
        }
```

```
    else {
```

```
        return False;
```

```
    }
```

```
}
```

```
return True;
```

```
}
```