2469. Convert the Temperature

▼ Link to problem on leetcode.

> **Convert the Temperature - LeetCode**
>
> Can you solve this real interview question? Convert the
> Temperature - You are given a non-negative floating point
> number rounded to two decimal places celsius, that denotes
>
> https://leetcode.com/problems/convert-the-temperature/
> description/

Problem Statement: You are given a non-negative floating point number rounded to two decimal places `celsius`, that denotes the **temperature in Celsius**. You should convert Celsius into **Kelvin** and **Fahrenheit** and return it as an array `ans = [kelvin, fahrenheit]`. Return *the array* `ans`. Answers within `10-5` of the actual answer will be accepted. **Note that:**

- `Kelvin = Celsius + 273.15`

- `Fahrenheit = Celsius * 1.80 + 32.00`

Solution in C:

```c
/**
 * Note: The returned array must be malloced, assume caller calls free().
 */
double* convertTemperature(double celsius, int* returnSize){
    double kelvin, fahrenheit;
    if(celsius >= 0 && celsius <= 1000) {
        double *retArr = (double*)malloc(2*sizeof(double));
        kelvin = celsius + 273.15;
        fahrenheit = celsius * 1.80 + 32.00;
        retArr[0] = kelvin;
        retArr[1] = fahrenheit;
        *returnSize = 2;
        return retArr;
    }
    return NULL;
}
```

Solution in Java:

```java
class Solution {
    public double[] convertTemperature(double celsius) {
        double kelvin, fahrenheit;
        double retArr[] = new double[2];
        kelvin = celsius + 273.15;
        fahrenheit = celsius * 1.8 + 32.00;
        retArr[0] = kelvin;
        retArr[1] = fahrenheit;
        return retArr;
    }
}
```