

Q.2 WAP to compute the BMI index of the person and print the BMI values as per the following ranges. You can use the following formula to compute $BMI = \frac{\text{Weight (kgs)}}{\text{Height (mts)}} * \text{Height (mts)}$.

	BMI
Starvation	< 15
Anorexic	15.1 to 17.5
Under Weight	17.6 to 18.5
Ideal	18.6 to 24.9
Overweight	25 to 25.9
Obese	30 to 39.9
Morbidly Obese	40.0 above

```
# include < stdio.h >
int main ()
```

```
{
float weight , height , BMI ;
printf ("Hello, Please enter your weight : ");
scanf ("%f" , & weight );
printf ("Hello, Please enter your height in metre : ");
scanf ("%f" , & height );
BMI = weight / (height * height );
if ( BMI < 18.5 ) {
    printf ("You are underweight \n" );
}
```

Remarks:

Teacher's Signature _____

```
{ else if ( BMI < 24.9 ) {  
    printf ("You are normal weight. \n");  
} else if ( BMI < 29.9 ) {  
    printf ("You are overWeight. \n");  
} else {  
    printf ("You are Obese. \n");  
}  
printf ("Your BMI is : %.2f \n", BMI);  
return 0;  
}
```

main.c

```
1 #include <stdio.h>
2
3 int main() {
4     // Declare float variables for weight, height, and BMI
5     float weight, height, BMI;
6
7     // Prompt user for weight and read the input
8     printf("Hello, please enter your weight (kgs): ");
9     scanf("%f", &weight);
10
11    // Prompt user for height and read the input
12    printf("Hello, please enter your height in metres: ");
13    scanf("%f", &height);
14
15    // Calculate BMI using the formula: weight / (height * height)
16    // Note: The handwritten code's BMI calculation was slightly
17    // incomplete,
18    // it's corrected here to: BMI = weight / (height * height)
19    BMI = weight / (height * height);
20
21    // Use if-else if ladder to determine and print the BMI
22    // category
23    // The ranges are taken from the table in the image:
24
25    if (BMI < 15.0) {
26        printf("You are in the **Starvation** range.\n");
27    }
28    else if (BMI > 15.0 & BMI < 18.5) {
29        printf("You are in the **Underweight** range.\n");
30    }
31    else if (BMI > 18.5 & BMI < 25.0) {
32        printf("You are in the **Ideal** (Normal Weight) range.\n");
33    }
34    else if (BMI > 25.0 & BMI < 30.0) {
35        printf("You are in the **Overweight** range.\n");
36    }
37    else {
38        printf("You are in the **Obesity** range.\n");
39    }
40}
```



Output

Hello, please enter your weight (kgs): 70
Hello, please enter your height in metres: 1.75
You are in the **Ideal** (Normal Weight) range.
Your BMI is: 22.86

== Code Execution Successful ==