

```
// Q5. Write a C program to find mean, median, mode.  
#include <stdio.h>
```

```
float mean(float A[], int x)  
{  
    float s = 0;  
    for (int i = 0; i < x; i++)  
        s += A[i];  
    return s / x;  
}
```

```
float median(float A[], int x)  
{  
    if (x % 2 == 0)  
        return (A[x / 2] + A[x / 2 - 1]) / 2;  
    else  
        return A[x / 2];  
}
```

```
void sort_array_increasing(float A[], int x)  
{  
    float t;  
    for (int i = 0; i < x; i++)  
    {  
        for (int j = i + 1; j < x; j++)  
        {  
            if (A[i] > A[j])  
            {  
                t = A[i];  
                A[i] = A[j];  
                A[j] = t;  
            }  
        }  
    }  
}
```

```
float mode(float A[], int x)  
{  
    int max_count = 0, count;  
    float mode_value = A[0];  
    for (int i = 0; i < x; i++)  
    {  
        count = 1; // Count occurrences of A[i]  
        for (int j = i + 1; j < x; j++)  
        {  
            if (A[i] == A[j])  
                count++;  
        }  
  
        if (count > max_count)  
        {
```

```

        max_count = count;
        mode_value = A[i];
    }
}
if (max_count == 1)
{
    printf("No mode exists (all values are unique).\n");
    return -1;
}

return mode_value;
}

int main()
{
    int n;
    printf("Enter Number of Elements: ");
    scanf("%d", &n);
    float Element[n];
    for (int i = 0; i < n; i++)
    {
        printf("Enter Element %d: ", i + 1);
        scanf("%f", &Element[i]);
    }
    sort_array_increasing(Element, n);
    printf("Elements in increasing order are: ");
    for (int i = 0; i < n; i++)
        printf("%.2f ", Element[i]);
    printf("\n");
    printf("Mean: %.2f\n", mean(Element, n));
    printf("Median: %.2f\n", median(Element, n));
    float mode_result = mode(Element, n);
    if (mode_result != -1)
        printf("Mode: %.2f\n", mode_result);
    return 0;
}

```

Output:

```

Enter Number of Elements: 5
Enter Element 1: 12
Enter Element 2: 35
Enter Element 3: 15
Enter Element 4: 13
Enter Element 5: 35
Elements in increasing order are: 12.00 13.00 15.00 35.00 35.00
Mean: 22.00
Median: 15.00
Mode: 35.00

```