

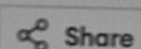
Experiment - 2-1

Q. WAP a C program to Calculate the area and perimeter of a rectangle based on its length and width.

→ #include <stdio.h>

```
int main() {  
    float length, width, area, perimeter;  
    printf("enter length: ");  
    scanf("%f", &length);  
    printf("enter width: ");  
    scanf("%f", &width);  
    area = length * width;  
    perimeter = 2 * (length + width);  
    printf("Area of rectangle: %.2f\n", area);  
    printf("Perimeter of rectangle: %.2f\n", perimeter);  
    return 0;  
}
```

main.c



Run

Output

```
4
5 int main() {
6     int length, width, area, perimeter;
7
8     // Seed the random number generator
9     srand(time(0));
10
11    // Generate random length and width between 1 and 100
12    length = rand() % 100 + 1;
13    width = rand() % 100 + 1;
14
15    // Calculations
16    area = length * width;
17    perimeter = 2 * (length + width);
18
19    // Output results
20    printf("Randomly generated length: %d\n", length);
21    printf("Randomly generated width: %d\n", width);
22    printf("Area of the rectangle: %d\n", area);
23    printf("Perimeter of the rectangle: %d\n", perimeter);
24
25    return 0;
26 }
27
28
```

Randomly generated length: 24  
Randomly generated width: 8  
Area of the rectangle: 192  
Perimeter of the rectangle: 64

=== Code Execution Successful ===

