## A C PROGRAM TO FIND THE AREA OF A RHOMBUS

#include <stdio.h>

int main() {
 float d1, d2, area;

// Input the lengths of the diagonals
printf("Enter the length of the first diagonal (d1): ");
scanf("%f", &d1);
printf("Enter the length of the second diagonal (d2): ");
scanf("%f", &d2);

// Calculate the area of the rhombus
area = 0.5 \* d1 \* d2;

// Output the area
printf("The area of the rhombus is: %.2f\n", area);

```
return 0;
```

```
}
```

Explanation:

- 1. Header file: #include <stdio.h>is included to use standard input and output functions.
- 2. Variables: we declare three float variables; d1, d2 and area.
- 3. Input: the lengths of the diagonals are taken as input from the user using scanf.
- 4. Area calculation: the area is calculated using the formula 0.5\* d1\* d2
- 5. Output: the calculated area is printed using printf.

To compile and run the program:

- 1. Save the document in a file named rhombus\_area.c.
- 2. Open a terminal and navigate to the directory containing the file
- 3. Compile the program using a C compiler
- 4. Run the compiled program using ./rhombus\_area

The program will prompt you to enter the lengths of the diagonals and then output the calculated area of the rhombus.