1. Program to find square root of a given number

Code

```c
//Program to find the square root of a given number
#include <stdio.h>
int main()
{
    float n,s;
    printf("Enter a number: ");
    scanf("%f",&n);
    s=sqrt(n);
    printf("The square root of number %f is %f.",n,s);
    return 0;
}
```

Output

E:\Manish\CProgramming\assignment4\question1.exe

```
Enter a number: 4.0
The square root of number 4.000000 is 2.000000.
-------------------------------
Process exited after 16.56 seconds with return value 0
Press any key to continue . . .
```

2. Program to find power of a given number
Code

```c
// Program to find power of a given number
#include <stdio.h>
#include <math.h>
int main()
{
    float x, y, power;
    printf("Enter the base number: ");
    scanf("%f", &x);
    printf("Enter the power: ");
    scanf("%f", &y);
    power = pow(x, y);
    printf("The power of %.2f^%.2f is %.2f", x, y, power);
    return 0;
}
```

Output

```
PROBLEMS    OUTPUT    TERMINAL    CODEWHISPERER REFERENCE LOG    COMMENTS    DEBUG CONSOLE

> ./question2
Enter the base number: 3.2
Enter the power: 2.0
The power of 3.20^2.00 is 10.24

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```

3. Program to find area and perimeter of a rectangle
Code

```
1   // Program to find area and perimeter of a rectangle
2   #include <stdio.h>
3   int main()
4   {
5       float l, b, area, perimeter;
6       printf("Enter length and bredth: ");
7       scanf("%f%f", &l, &b);
8       area = l * b;
9       perimeter = 2 * (l + b);
10      printf("Area = %f\n", area);
11      printf("Perimeter = %f\n", perimeter);
12      return 0;
13  }
```

Output

```
PROBLEMS    OUTPUT    TERMINAL    CODEWHISPERER REFERENCE LOG    COMMENTS    DEBUG CONSOLE

> ./question3
Enter length and bredth: 10 12
Area = 120.000000
Perimeter = 44.000000

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```

4. Program to find price of n mangoes given the price of a dozen mangoes.
   Code

```c
// Program to find price of n mangoes given the price of a dozen mangoes
#include <stdio.h>
int main()
{
    float priceDozen, pricen;
    int n;
    printf("Enter price of dozen mangoes: ");
    scanf("%f", &priceDozen);
    printf("Enter number of mangoes: ");
    scanf("%d", &n);
    pricen = priceDozen / 12 * n;
    printf("Price of %d mangoes is %f", n, pricen);
    return 0;
}
```

Output

PROBLEMS   OUTPUT   TERMINAL   CODEWHISPERER REFERENCE LOG   COMMENTS   DEBUG CONSOLE

```
> make question4
make: 'question4' is up to date.
> ./question4
Enter price of dozen mangoes: 1250
Enter number of mangoes: 50
Price of 50 mangoes is 5208.333008%
```

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5. Program to convert pounds to kilometres
   Code

```c
// Program to convert pounds to kilograms
#include <stdio.h>
int main()
{
    float pounds, kilograms;
    printf("Enter a value in pounds: ");
    scanf("%f", &pounds);
    kilograms = pounds * 0.454;
    printf("The value in kilograms is %f\n", kilograms);
    return 0;
}
```
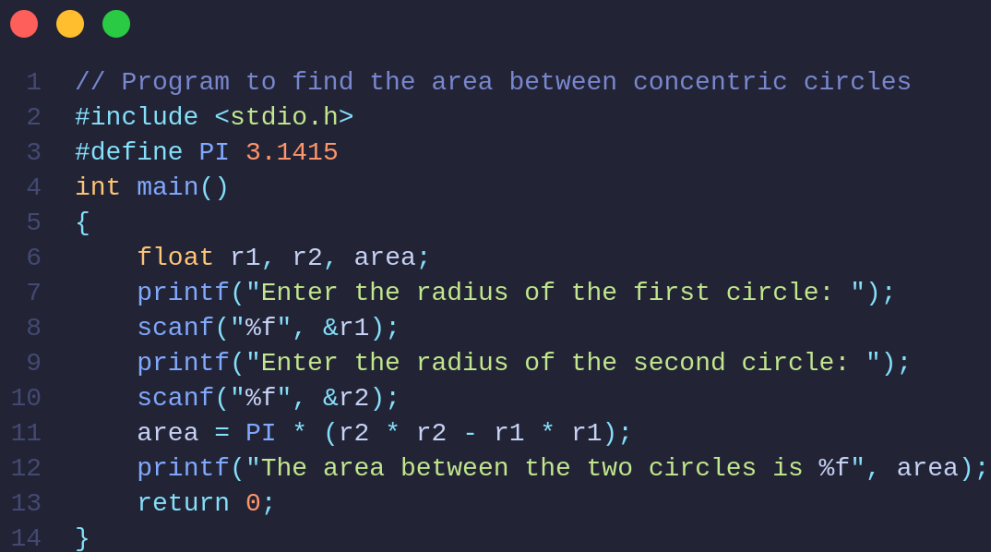
Output

PROBLEMS   OUTPUT   TERMINAL   CODEWHISPERER REFERENCE LOG   COMMENTS   DEBUG CONSOLE

> ./question5
Enter a value in pounds: 87
The value in kilograms is 39.498001

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6. Program to find the area between concentric circles
   Code
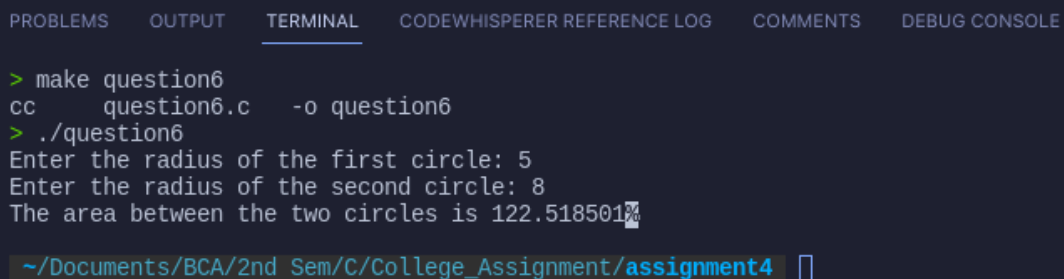
```
1   // Program to find the area between concentric circles
2   #include <stdio.h>
3   #define PI 3.1415
4   int main()
5   {
6       float r1, r2, area;
7       printf("Enter the radius of the first circle: ");
8       scanf("%f", &r1);
9       printf("Enter the radius of the second circle: ");
10      scanf("%f", &r2);
11      area = PI * (r2 * r2 - r1 * r1);
12      printf("The area between the two circles is %f", area);
13      return 0;
14  }
```

Output

```
PROBLEMS    OUTPUT    TERMINAL    CODEWHISPERER REFERENCE LOG    COMMENTS    DEBUG CONSOLE

> make question6
cc      question6.c   -o question6
> ./question6
Enter the radius of the first circle: 5
Enter the radius of the second circle: 8
The area between the two circles is 122.518501%

 ~/Documents/BCA/2nd Sem/C/College_Assignment/assignment4  []
```

7. Program to find the area of triangle if measurement of three sides is given.
   Code

```c
// Program to find the area of triangle if measurement of three sides is given
#include <stdio.h>
#include <math.h>
int main()
{
    float a, b, c, s, area;
    printf("Enter the three sides of triangle: ");
    scanf("%f%f%f", &a, &b, &c);
    s = (a + b + c) / 2;
    area = sqrt(s * (s - a) * (s - b) * (s - c));
    printf("Area of triangle is %f", area);
    return 0;
}
```

Output

PROBLEMS   OUTPUT   **TERMINAL**   CODEWHISPERER REFERENCE LOG   COMMENTS   DEBUG CONSOLE

```
> ./question7
Enter the three sides of triangle: 12 23 32
Area of triangle is 106.507919%

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```