CSE115L – Computing Concepts Lab

Input two integers and output their sum:

```
#include<stdio.h>
int main()
{
	int var1, var2;
	scanf("%d%d", &var1, &var2);
	printf("%d + %d = %d\n", var1, var2, var1+var2);
	return 0;
}
```

```
#include<stdio.h>
int main()
{
	int var1, var2;
	int result;
	scanf("%d%d", &var1, &var2);
	result = var1 + var2;
	printf("%d + %d = %d\n", var1, var2, result);
	return 0;
}
```

Input two double precision floating point numbers and output their sum and division:

```
#include<stdio.h>
int main()
{
	double var1, var2;
	int result1,result2;
	scanf("%lf%lf", &var1, &var2);
	result1 = var1 + var2;
	result2 = var1 / var2;
	printf("%lf + %lf = %d\n", var1, var2, result1);
	printf("%lf / %lf = %d\n", var1, var2, result2);
	return 0;
}
```

```
#include<stdio.h>
int main()
{
	double var1, var2;
	double result1,result2;
	scanf("%lf%lf", &var1, &var2);
	result1 = var1 + var2;
	result2 = var1 / var2;
	printf("%lf + %lf = %.2lf\n", var1, var2, result1);
	printf("%lf / %lf = %.2lf\n", var1, var2, result2);
	return 0;
}
```

Find the function value of $f(x) = 2x^2 + 3x + 1$ and $f(x) = \sqrt{(3x^3 + 2x^2 + 4)}$ using `pow()` and `sqrt()` function

```
#include<stdio.h>
#include<math.h>

int main()
{
  int x, result;
  printf("Enter a number:");
  scanf("%d",&x);
  result = 2*pow(x,2)+3*x+1;
  printf("%d",result);
  return 0;
}
```

```
#include<stdio.h>
#include<math.h>
int main()
{
  int x;
  double result;
  printf("Enter a number:");
  scanf("%d",&x);
  result = sqrt(3*pow(x,3)+2*pow(x,2)+4);
  printf("%lf",result);
  return 0;
}
```

Problems:

1. Write a program to find the average of five numbers. Take all the numbers from user as input.

Sample Output 1:

```
Enter 5 numbers: 4  8  2  1  5
Average is: 4.00
```

Sample Output 2:

```
Enter 5 numbers: 4.1  8.2  2  1.3  5.5
Average is: 4.22
```

2. Write a program that finds the height and area of a right triangle (90^o) using Pythagorean theorem. Take hypotenuse and base as input from the user. Use `pow()` and `sqrt()` function.

Sample Output:

```
Enter base: 3
Enter hypotenuse: 5
Height is: 4.00
Area is: 6.00
```

3. Write a program to calculate the area and the perimeter of a circle. Take radius as input.

Sample Output:

```
Enter the radius: 5
Area of the circle: 78.5
Perimeter of the circle: 31.4
```