1.Bank Account

Suppose you want to deposit a certain amount of money into a savings account, and then leave it alone to draw interest for the next 10 years. At the end of 10 years you would like to have $10,000 in the account. How much do you need to deposit today to make that happen? You can use the following formula, which is known as the present value formula, to find out:

$$P = \frac{F}{(1+r)^n}$$

The terms in the formula are as follows:
* P is the **present value**, or the amount that you need to deposit today.
* F is the **future value** that you want in the account. (In this case, F is $10,000.)
* r is the **annual interest rate**.
* n is the **number of years** that you plan to let the money sit in the account.

Write a program that has a function named presentValue that performs this calculation. The function should accept the future value, annual interest rate, and number of years as arguments. It should return the present value, which is the amount that you need to deposit today. Demonstrate the function in a program that lets the user experiment with different values for the formula s terms.

```
            Present value calculator
--------------------------------------------------------
What is the future amount you want in the account? 10000
What is your annual interest rate? 0.5
How many years do you plan to let the money sit in the account? 10
You need to deposit $173.42 to have a balance of $10000.00 in 10 years.

Press any key to continue . . .
```

2.Area of the Circle

Program calculates the area of a circle, has two functions in addition to main. One of the functions is named `square`, and it returns the square of any number passed to it as an argument. The square function is called in a mathematical statement. The program also has a function named `getRadius`, which prompts the user to enter the circle's radius. The value entered by the user is returned from the function.

```
const double PI = 3.14159
```

```
functions square, getRadius
```

Formula: $A = \pi r^2$