



```
1 #include <stdio.h>
2 int main() {
3     int base, exp;
4     long double result = 1.0;
5     printf("Enter a base number: ");
6     scanf("%d", &base);
7     printf("Enter an exponent: ");
8     scanf("%d", &exp);
9
10    while (exp != 0) {
11        result *= base;
12        --exp;
13    }
14    printf("Answer = %.0Lf", result);
15    return 0;
16 }
```

/tmp/Ngv0WcT5Jl.o

Enter a base number: 25

Enter an exponent: 27

Answer = 55511151231257827013803521536761528320

main.c



Run

Output

```
1 #include <stdio.h>
2 int main()
3 {
4     int a,b,big;
5     printf("enter first number a");
6     scanf("%d",&a);
7     printf("enter second number b");
8     scanf("%d",&b);
9     if (a>b)
10    big=a;
11    else
12    big=b;
13    printf("%d",big);
14    return 0;
15 }
```

/tmp/6Wqf11tP2X.o  
enter first number a25  
enter second number b65  
65

main.c



Run

```
1 int main()
2 {
3     int rad;
4     float PI = 3.14, area, c;
5     printf("\nEnter radius of circle: ");
6     scanf("%d", &rad); area = PI * rad * rad;
7     printf("\nArea of circle : %f ", area); c = 2 * PI * rad;
8     printf("\nCircumference : %f ", c);
9     return (0);
10
11 }
```

Output

Clear

```
/tmp/xXnA3SQ25B.o
Enter radius of circle: 5
Area of circle : 78.500000
Circumference : 31.400002
```

main.c



Run

```
1 #include<stdio.h>
2 int main()
3 {
4     int base ,height, area;
5     printf("enter base of the triangle");
6     scanf("%d",&base);
7     printf("enter height of the triangle");
8     scanf("%d",&height);
9     area = (base*height) / 2 ;
10    printf("%d",area);
11    return (0);
12 }
```

Output

Clear

```
/tmp/xxnA3SQ25B.o
enter base of the triangle6
enter height of the triangle10
30
```

main.c



Run

Output

```

1  #include <stdio.h>
2  int main() {
3      int num, originalNum, remainder, n = 0;
4      float result = 0.0;
5      printf("Enter an integer: ");
6      scanf("%d", &num);
7      originalNum = num;
8      for (originalNum = num; originalNum != 0; ++n) {
9          originalNum /= 10;
10     }
11     for (originalNum = num; originalNum != 0; originalNum /= 10) {
12         remainder = originalNum % 10;
13         result += pow(remainder, n);
14     }
15     if ((int)result == num)
16         printf("%d is an Armstrong number.", num);
17     else
18         printf("%d is not an Armstrong number.", num);
19     return 0;
20 }
```

/tmp/kKRHUwqx2x.o

Enter an integer: 8974

8974 is not an Armstrong number.

main.c



Run

Output

```
1 #include <stdio.h>
2 int main() {
3     char c;
4     printf("Enter a character: ");
5     scanf("%c", &c);
6
7     // %d displays the integer value of a character
8     // %c displays the actual character
9     printf("ASCII value of %c = %d", c, c);
10
11     return 0;
12 }
13
```

/tmp/yPRbjzwnDt.o

Enter a character: f

ASCII value of f = 102

main.c



Run

Output

```
1  #include<stdio.h>
2
3  int main() {
4      int s1, s2, s3, s4, s5, sum, total = 500;
5      float per;
6
7      printf("\nEnter marks of 5 subjects : ");
8      scanf("%d %d %d %d %d", &s1, &s2, &s3, &s4, &s5);
9
10     sum = s1 + s2 + s3 + s4 + s5;
11     printf("\nSum : %d", sum);
12
13     per = (sum * 100) / total;
14     printf("\nPercentage : %f", per);
15
16     return (0);
17 }
```

/tmp/ucXFZG3xTt.o

Enter marks of 5 subjects : 20 90 30 55 75

Sum : 270

Percentage : 54.000000

main.c



Run

```
1 #include <stdio.h>
2
3 int main()
4 {
5     float celsius, fahrenheit;
6     printf("Enter temperature in Celsius: ");
7     scanf("%f", &celsius);
8     fahrenheit = (celsius * 9 / 5) + 32;
9     printf("%.2f Celsius = %.2f Fahrenheit", celsius, fahrenheit);
10 return 0;
11 }
```

Output

Clear

```
/tmp/ucXFZG3xTt.o
Enter temperature in Celsius: 35
35.00 Celsius = 95.00 Fahrenheit
```



main.c



Run

Output

Clear

```
1 #include <stdio.h>
2 int main() {
3     int num;
4     printf("Enter an integer: ");
5     scanf("%d", &num);
6     if(num % 2 == 0)
7         printf("%d is even.", num);
8     else
9         printf("%d is odd.", num);
10
11     return 0;
12 }
13
```

```
/tmp/tV1F9nyaeK.o
Enter an integer: 98
98 is even.
```

main.c



Run

Output

Clear

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,fact=1,number;
5     printf("Enter a number: ");
6     scanf("%d",&number);
7     for(i=1;i<=number;i++){
8         fact=fact*i;
9     }
10    printf("Factorial of %d is: %d",number,fact);
11    return 0;
12 }
```

/tmp/ucXFZG3xTt.o

Enter a number: 5

Factorial of 5 is: 120

main.c



Run

Output

```
1  #include<stdio.h>
2  int main()
3  {
4      int i=1,n,f,f1,f2;
5      printf("Enter Number of Fibonacci Values Needed : ");
6      scanf("%d",&n);
7      f=0;
8      f1=1;
9      f2=1;
10     do
11     {
12         i++;
13         printf("%d\n",f);
14         f1=f2;
15         f2=f;
16         f=f1+f2;
17     }
18     while(i<=n);
19     return 0;
20 }
```

*/tmp/8wAwVxnTmf.o*

Enter Number of Fibonacci Values Needed : 15

0

1

1

2

3

5

8

13

21

34

55

89

144

233

377

main.c



Run

Output

```
1  #include <stdio.h>
2  int main()
3  {
4      int n1, n2, i, gcd;
5      printf("Enter two integers: ");
6      scanf("%d %d", &n1, &n2);
7      for(i=1; i <= n1 && i <= n2; ++i)
8      {
9          if(n1%i==0 && n2%i==0)
10             gcd = i;
11     }
12     printf("G.C.D of %d and %d is %d", n1, n2, gcd);
13     return 0;
14 }
```

/tmp/8WAwVxnTmf.o

Enter two integers: 12 97

G.C.D of 12 and 97 is 1



```
#include <stdio.h>

int main()
{
    double n1, n2, n3;
    printf("Enter three different numbers: ");
    scanf("%lf %lf %lf", &n1, &n2, &n3);
    if (n1 >= n2 && n1 >= n3)
        printf("%.2f is the largest number.", n1);
    if (n2 >= n1 && n2 >= n3)
        printf("%.2f is the largest number.", n2);
    if (n3 >= n1 && n3 >= n2)
        printf("%.2f is the largest number.", n3);
    return 0;
}
```

/tmp/Dw3x3x6uQN.o

Enter three different numbers: 25 94 57

94.00 is the largest number.



main.c



Run

Output

```
1  #include <stdio.h>
2  int main()
3  {
4      double n1, n2, n3;
5      printf("Enter three different numbers: ");
6      scanf("%lf %lf %lf", &n1, &n2, &n3);
7      if (n1 >= n2 && n1 >= n3)
8          printf("%.2f is the largest number.", n1);
9      if (n2 >= n1 && n2 >= n3)
10         printf("%.2f is the largest number.", n2);
11     if (n3 >= n1 && n3 >= n2)
12         printf("%.2f is the largest number.", n3);
13     return 0;
14 }
```

*/tmp/BZbdkM7jZq.o*

Enter three different numbers: 11 24 55

55.00 is the largest number.

main.c



Run

Output

Clear

```
1 #include<stdio.h>
2 int main()
3 {
4     int marks;
5     printf("\n-----");
6     printf("\nEnter The Marks Between 0 To 100:");
7
8     printf("\nEnter The Mark: ");
9     scanf("%d", &marks);
10    if(marks>100)
11    {
12        printf("\nDon't Be Smart Enter your Marks Between Limit\n");
13    }
14    else
15    {
16        switch(marks/10)
17        {
18            case 10 :
19            case 9 :
20                printf("\n Your Grade is: A");
21                break;
22            case 8 :
23                printf("\n Your Grade is: B" );
24                break;
25            case 7 :
26                printf("\n Your Grade is: C" );
```

/tmp/zcRoG93g6W.o

-----

Enter The Marks Between 0 To 100:

Enter The Mark: 92

Your Grade is: A

main.c



Run

Output

```
1  #include <stdio.h>
2
3  int main() {
4      int n1, n2, max;
5      printf("Enter two positive integers: ");
6      scanf("%d %d", &n1, &n2);
7      max = (n1 > n2) ? n1 : n2;
8      while (1) {
9          if ((max % n1 == 0) && (max % n2 == 0)) {
10             printf("The LCM of %d and %d is %d.", n1, n2, max);
11             break;
12         }
13         ++max;
14     }
15     return 0;
16 }
17
```

/tmp/8wAwVxnTmf.o

Enter two positive integers: 6 9  
The LCM of 6 and 9 is 18.





main.c



Run

Output

```
1 #include <stdio.h>
2
3 int main() {
4     int year;
5     printf("enter a year");
6     scanf("%d",&year);
7     if (((year % 4 == 0) && (year % 100 != 0)) || (year%400 == 0))
8         printf("%d is a leap year", year);
9     else
10        printf("%d is not a leap year", year);
11
12    return 0;
13 }
```

*/tmp/GfLNziTskQ.o*

enter a year2005

2005 is not a leap year|

main.c



Run

```
1 #include<stdio.h>
2
3 int main() {
4
5     char fname[20], mname[20], lname[20];
6     printf("Enter The First Name, Middle Name and Last Name \n");
7     scanf("%s %s %s", fname, mname, lname);
8     printf("Abbreviated Name: ");
9     printf("%c. %c. %s\n", fname[0], mname[0], lname);
10    return 0;
11 }
```

Output

Clear

*/tmp/xXnA3SQ25B.o*

Enter The First Name, Middle Name and Last Name

shivam kumar khandelwal

Abbreviated Name: s. k. khandelwal



```
1  #include <stdio.h>
2  int main() {
3      int n, reverse = 0, remainder;
4      printf("Enter an integer: ");
5      scanf("%d", &n);
6      while (n != 0) {
7          remainder = n % 10;
8          reverse = reverse * 10 + remainder;
9          n /= 10;
10     }
11     printf("Reversed number = %d", reverse);
12     return 0;
13 }
```

/tmp/8wAwVxnTmf.o

Enter an integer: 25

Reversed number = 52

```
1  #include<stdio.h>
2  int main()
3  {
4      int n, reverse = 0, rem, temp;
5      printf("Enter Number to Check Palindrome Number or Not:\n");
6      scanf("%d", & n);
7      temp = n;
8      while (temp != 0) {
9          rem = temp % 10;
10         reverse = reverse * 10 + rem;
11         temp /= 10;
12     }
13     if (reverse == n)
14         printf("%d is a Palindrome Number.", n);
15     else
16         printf("%d is Not a Palindrome Number.", n);
17     return 0;
18 }
```

/tmp/8WAwVxnTmf.o

Enter Number to Check Palindrome Number or Not:

242

242 is a Palindrome Number.

```
1  #include <stdio.h>
2  int main() {
3      long long n;
4      int count = 0;
5      printf("Enter an integer: ");
6      scanf("%lld", &n);
7      do {
8          n /= 10;
9          ++count;
10     } while (n != 0);
11     printf("Number of digits: %d", count);
12 }
```

/tmp/zcRoG93g6W.o

Enter an integer: 2411

Number of digits: 4

main.c



Run

Output

```
1  #include <stdio.h>
2  int main()
3  {
4      int num,rem,reverse=0;
5      printf("Enter a number for find reverse\n");
6      scanf("%d",&num);
7      printf("You entered %d\n",num);
8      for(;num!=0; num=num/10){
9          rem=num%10;
10         reverse=reverse*10+rem;
11     }
12     printf("Reverse of the given number %d",reverse);
13     return 0;
14 }
```

*/tmp/BZbdkM7jZq.o*

Enter a number for find reverse

589

You entered 589

Reverse of the given number 985

main.c



Run

Output

```
1 #include <stdio.h>
2 int main()
3 {
4     int principal, rate, time, interest;
5     printf("Enter the principal: ");
6     scanf("%d", &principal);
7     printf("Enter the rate: ");
8     scanf("%d", &rate);
9     printf("Enter the time: ");
10    scanf("%d", &time);
11    interest = principal * rate * time / 100;
12    printf("The Simple interest is %d", interest);
13    return 0;
14 }
```

*/tmp/GwrCLBqrAu.o*

Enter the principal: 2500

Enter the rate: 5

Enter the time: 6

The Simple interest is 750

main.c



Run

Output

```
2 int main()
3 {
4     char op;
5     double first, second;
6     printf("Enter an operator (+, -, *, /): ");
7     scanf("%c", &op);
8     printf("Enter two operands: ");
9     scanf("%lf %lf", &first, &second);
10    switch (op) {
11        case '+':
12            printf("%.1lf + %.1lf = %.1lf", first, second, first + second);
13            break;
14        case '-':
15            printf("%.1lf - %.1lf = %.1lf", first, second, first - second);
16            break;
17        case '*':
18            printf("%.1lf * %.1lf = %.1lf", first, second, first * second);
19            break;
20        case '/':
21            printf("%.1lf / %.1lf = %.1lf", first, second, first / second);
22            break;
23        default:
24            printf("Error! operator is not correct");
25    }
26    return 0;
27 }
```

/tmp/bTC06up4x8.o

Enter an operator (+, -, \*, /): -

Enter two operands: 2 5

2.0 - 5.0 = -3.0



main.c



Run

Output

```
1 #include <stdio.h>
2 int main() {
3     int n, i, range;
4     printf("Enter an integer: ");
5     scanf("%d", &n);
6     do {
7         printf("Enter the range (positive integer): ");
8         scanf("%d", &range);
9     } while (range <= 0);
10    for (i = 1; i <= range; ++i) {
11        printf("%d * %d = %d \n", n, i, n * i);
12    }
13    return 0;
14 }
15
```

/tmp/LHP5IMjxwk.o

Enter an integer: 9

Enter the range (positive integer): 10

9 \* 1 = 9

9 \* 2 = 18

9 \* 3 = 27

9 \* 4 = 36

9 \* 5 = 45

9 \* 6 = 54

9 \* 7 = 63

9 \* 8 = 72

9 \* 9 = 81

9 \* 10 = 90

main.c



Run

```
1 #include <stdio.h>
2 int main() {
3     int n, i, sum = 0;
4     printf("Enter a positive integer: ");
5     scanf("%d", &n);
6     for (i = 1; i <= n; ++i) {
7         sum += i;
8     }
9     printf("Sum = %d", sum);
10    return 0;
11 }
```

Output

*/tmp/8WAwVxnTmf.o*

Enter a positive integer: 25

Sum = 325

main.c



Run

```
1 #include <stdio.h>
2
3 int main() {
4     printf("Size of Int Data Types in C = %2d bytes \n", sizeof(short int));
5     printf("Size of Long Int Data Types in C = %2d bytes \n", sizeof(long int));
6     printf("Size of Float Data Types in C = %2d bytes \n", sizeof(float));
7     printf("Size of Double Data Types in C = %2d bytes \n", sizeof(double));
8     printf("Size of Long Double Data Types in C = %2d bytes \n", sizeof(long double));
9     printf("Size of Char Data Types in C = %2d bytes \n", sizeof(char));
10    return 0;
11 }
```

Output

Clear

*/tmp/ucXFZG3xTc.o*

Size of Int Data Types in C = 2 bytes

Size of Long Int Data Types in C = 8 bytes

Size of Float Data Types in C = 4 bytes

Size of Double Data Types in C = 8 bytes

Size of Long Double Data Types in C = 16 bytes

Size of Char Data Types in C = 1 bytes

main.c



Run

Output

```
3- {
4   int dd,mm,yy;
5   printf("Enter date (DD/MM/YYYY format): ");
6   scanf("%d/%d/%d",&dd,&mm,&yy);
7   if(yy>=1900 && yy<=9999)
8   {
9       if(mm>=1 && mm<=12)
10      {
11          if((dd>=1 && dd<=31) && (mm==1 || mm==3 || mm==5 || mm==7 || mm==8 ||
12              mm==10 || mm==12))
13              printf("Date is valid.\n");
14          else if((dd>=1 && dd<=30) && (mm==4 || mm==6 || mm==9 || mm==11))
15              printf("Date is valid.\n");
16          else if((dd>=1 && dd<=28) && (mm==2))
17              printf("Date is valid.\n");
18          else if(dd==29 && mm==2 && (yy%400==0 || (yy%4==0 && yy%100!=0)))
19              printf("Date is valid.\n");
20          else
21              printf("Day is invalid.\n");
22      }
23      else
24      {
25          printf("Month is not valid.\n");
26      }
27      else
```

*/tmp/BZbdkM7jZq.o*

Enter date (DD/MM/YYYY format): 24/11/2005

Date is valid.

main.c



Run

Output

Clear

```
1 #include <stdio.h>
2
3 int main() {
4
5     double num;
6     printf("Enter a number: ");
7     scanf("%lf", &num);
8     if (num <= 0.0) {
9         if (num == 0.0)
10             printf("You entered 0.");
11         else
12             printf("You entered a negative number.");
13     }
14     else
15         printf("You entered a positive number.");
16
17     return 0;
18 }
```

```
/tmp/ucXFZG3xTt.o
Enter a number: -5
You entered a negative number.
```

main.c



Run

Output

```
1 #include <stdio.h>
2 int main()
3 {
4     int age;
5     printf("Enter age");
6     scanf("%d", &age);
7     if (age >= 18)
8         printf("You can Vote!");
9     else
10        printf("You cant Vote!");
11    return 0;
12 }
```

/tmp/6Wqf11tP2X.o

Enter age25

You can Vote!

main.c



Run

Output

Clear

```
1
2 #include <stdio.h>
3
4 int main() {
5     char c;
6     int lowercase_vowel, uppercase_vowel;
7     printf("Enter an alphabet: ");
8     scanf("%c", &c);
9     lowercase_vowel = (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u');
10    uppercase_vowel = (c == 'A' || c == 'E' || c == 'I' || c == 'O' || c == 'U');
11    if (!isalpha(c))
12        printf("Error! Non-alphabetic character.");
13    else if (lowercase_vowel || uppercase_vowel)
14        printf("%c is a vowel.", c);
15    else
16        printf("%c is a consonant.", c);
17    return 0;
18 }
```

/tmp/BZbdkM7jZq.o  
Enter an alphabet: s  
s is a consonant.

main.c



Run

Output

Clear

```
1 #include <stdio.h>
2 int main() {
3     char c;
4     int lowercase_vowel, uppercase_vowel;
5     printf("Enter an alphabet: ");
6     scanf("%c", &c);
7
8
9     lowercase_vowel = (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u');
10
11
12     uppercase_vowel = (c == 'A' || c == 'E' || c == 'I' || c == 'O' || c == 'U');
13
14
15     if (lowercase_vowel || uppercase_vowel)
16         printf("%c is a vowel.", c);
17     else
18         printf("%c is a consonant.", c);
19     return 0;
20 }
21
```

/tmp/mdaB0sYy31.o  
Enter an alphabet: g  
g is a consonant.





```
1 #include <stdio.h>
2 int main()
3 {
4     int week;
5     printf("Enter week number(1-7): ");
6     scanf("%d", &week);
7     switch(week)
8     {
9         case 1:
10             printf("Monday");
11             break;
12         case 2:
13             printf("Tuesday");
14             break;
15         case 3:
16             printf("Wednesday");
17             break;
18         case 4:
19             printf("Thursday");
20             break;
21         case 5:
22             printf("Friday");
23             break;
24         case 6:
25             printf("Saturday");
26             break;
```

/tmp/zcRoG93g6w.o

Enter week number(1-7): 3

Wednesday