

C Programming Assignment

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Solutions

1. Add two numbers

```
1
2 #include <stdio.h>
3
4 int main() {
5     int a, b, sum;
6     printf("Enter Two number: ");
7     scanf("%d %d", &a, &b);
8
9     sum = a + b;
10    printf("sum = %d\n", sum);
11    return 0;
12 }
```

2. Subtract two numbers

```
1 // subtracttwo numbers.c
2 #include <stdio.h>
3
4 int main() {
5     int a, b, subtract;
6     printf("Enter two numbers: ");
7     scanf("%d %d", &a, &b);
8     subtract = a - b;
9     printf("Subtraction = %d\n", subtract);
10    return 0;
11 }
```

3. Multiply two numbers

```
1 #include <stdio.h>
2 int main() {
3     int a, b, multiply;
4     printf("Enter two numbers: ");
```

Programiz
C Online Compiler

Programiz PRO

```

main.c
1 // Online C compiler to run C program online
2 #include <stdio.h>
3 int main(){
4     int a, b, sum;
5     printf("Enter two numbers: ");
6     scanf("%d %d", &a, &b);
7     sum = a + b;
8     printf("Sum = %d\n", sum);
9     return 0;
10
11 }

```

Output

```

Enter two numbers: 24 24
Sum = 48

=== Code Execution Successful ===

```

Figure 1: addition

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```

main.c
1 #include <stdio.h>
2 int main() {
3     int a, b, sub;
4     printf("Enter two numbers");
5     scanf("%d %d", &a, &b);
6     sub = a - b;
7     printf("Sub = %d\n", sub);
8     return 0;
9 }
10

```

Output

```

Enter two numbers4
6
Sub = -2

=== Code Execution Successful ===

```

Figure 2: Enter Caption

main.c

```

1 #include <stdio.h>
2
3
4 float main() {
5
6     float a, b, divide;
7
8     printf("Enter Two Numbers");
9
10    scanf("%d %d", &a, &b);
11
12    divide = a/b;
13    printf("divide = %f\n", divide);

```

Output

```

Enter Two Numbers20
50
divide = 0.400000

=== Code Exited With Errors ===

```

Figure 3: Enter Caption

```

main.c
1 #include<stdio.h>
2 int main() {
3     int a, b, multiply;
4     printf("Enter two numbers: ");
5     scanf("%d %d", &a, &b);
6     multiply = a * b;
7     printf("multiply = %d\n", multiply);
8     return 0;
9 }

Output
Enter two numbers: 40
10
multiply = 400

=== Code Execution Successful ===

```

Figure 4: multiply

```

main.c
1 #include <stdio.h>
2
3
4 float main() {
5
6     float a, b, divide;
7
8     printf("Enter Two Numbers");
9
10    scanf("%d %d", &a, &b);
11
12    divide = a/b;
13    printf("divide = %f\n", divide);
14 }

Output
Enter Two Numbers20
50
divide = 0.400000

=== Code Exited With Errors ===

```

Figure 5: Enter Caption

```

5 scanf("%d %d", &a, &b);
6 multiply = a * b;
7 printf("multiply = %d\n", multiply);
8 return 0;
9 }

```

4. Divide two numbers

```

1 #include <stdio.h>
2
3 int main() {
4     int a, b;
5     float divide;
6     printf("Enter two numbers: ");
7     scanf("%d %d", &a, &b);
8     divide = (float)a / b;
9     printf("divide = %f\n", divide);
10    return 0;
11 }

```

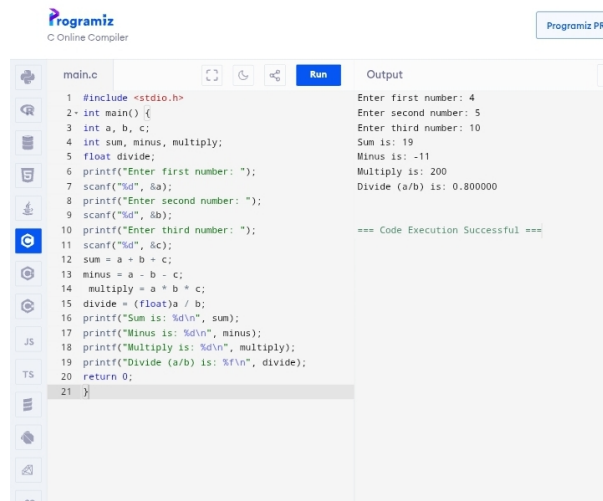


Figure 6: all operation

5. Perform all four operations

```

1 #include <stdio.h>
2 int main() {
3     int a, b, c;
4     int sum, minus, multiply;
5     float divide;
6     printf("Enter first number: ");
7     scanf("%d", &a);
8     printf("Enter second number: ");
9     scanf("%d", &b);
10    printf("Enter third number: ");
11    scanf("%d", &c);
12    sum = a + b + c;
13    minus = a - b - c;
14    multiply = a * b * c;
15    divide = (float)a / b;
16    printf("Sum is: %d\n", sum);
17    printf("Minus is: %d\n", minus);
18    printf("Multiply is: %d\n", multiply);
19    printf("Divide (a/b) is: %f\n", divide);
20    return 0;
21 }

```

6. Convert hours into minutes

```

1 #include <stdio.h>
2 int main() {
3     int hours;
4     int minutes;
5     printf("Enter hours: ");
6     scanf("%d", &hours);

```

```

7 minutes = hours * 60;
8 printf("Minutes = %d\n", minutes);
9
10     return 0;
11 }

```

7. Convert minutes into hours

```

1 #include <stdio.h>
2 int main() {
3     int minutes;
4     int hours;
5     printf("Enter minutes: ");
6     scanf("%d", &minutes);
7     hours = minutes / 60;
8     printf("Hours are: %d\n", hours);
9     return 0;
10 }

```

8. Convert dollars into Rs. (1\$ = 80 Rs)

```

1 #include <stdio.h>
2 int main() {
3     int dollars;
4     int rupees;
5     printf("Enter dollars: ");
6     scanf("%d", &dollars);
7     rupees = dollars * 80;
8     printf("Rupees are: %d\n", rupees);
9
10     return 0;
11 }

```

9. Convert Rs. into dollars

```

1 #include <stdio.h>
2 int main() {
3     int rupees;
4     int dollars;
5     printf("Enter rupees: ");
6     scanf("%d", &rupees);
7     dollars = rupees / 80;
8     printf("Dollars are: %d\n", dollars);
9     return 0;
10 }

```

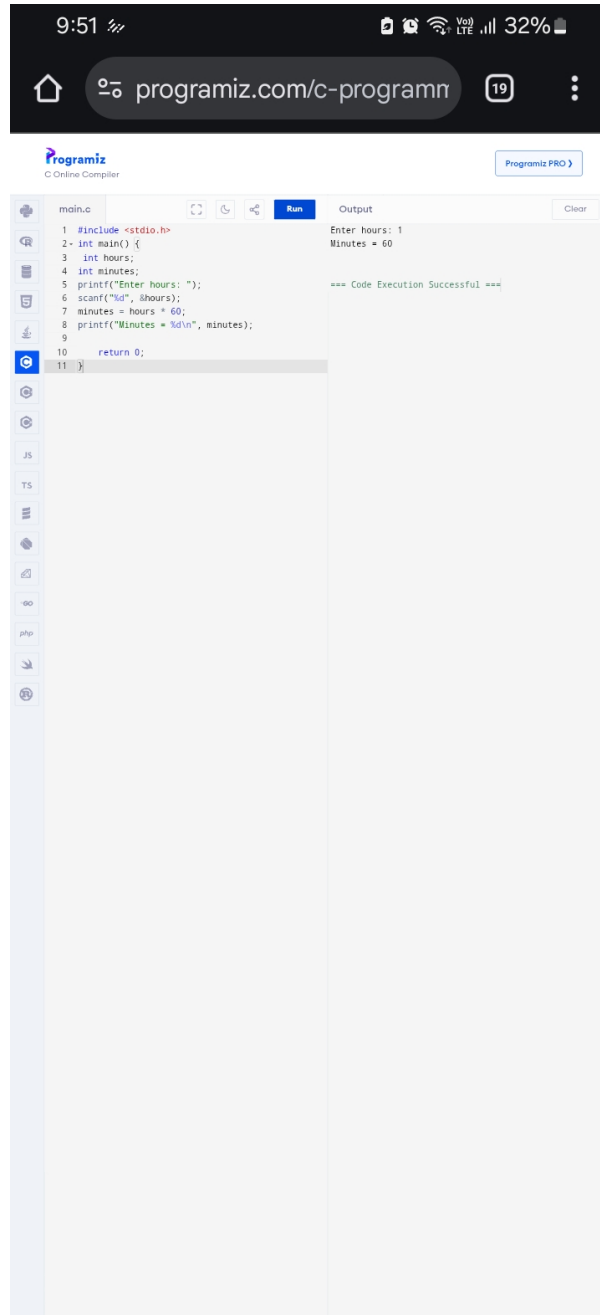


Figure 7: hours to minute

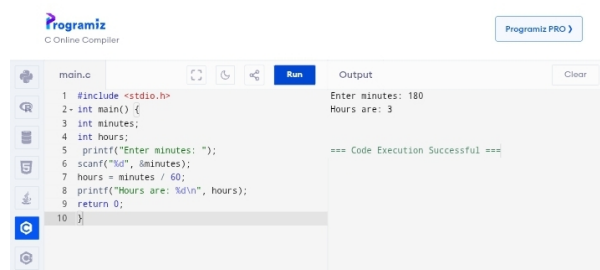
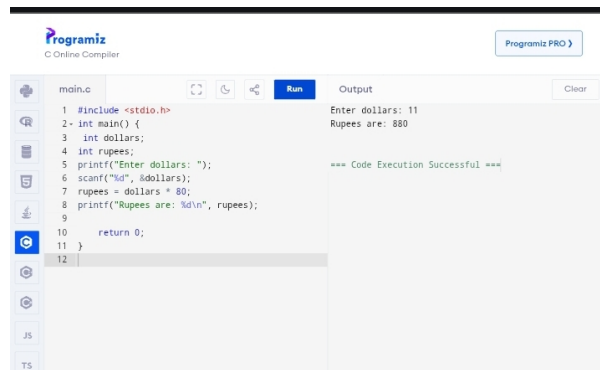


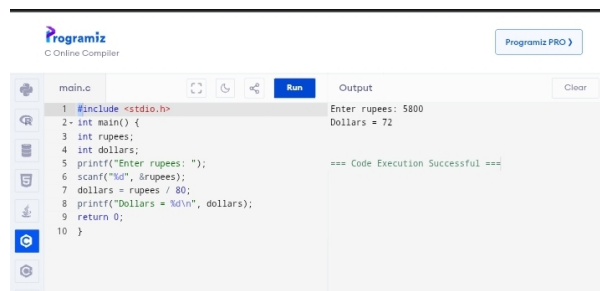
Figure 8: Enter Caption



```
1 #include <stdio.h>
2 int main() {
3     int dollars;
4     int rupees;
5     printf("Enter dollars: ");
6     scanf("%d", &dollars);
7     rupees = dollars * 80;
8     printf("Rupees are: %d\n", rupees);
9
10    return 0;
11 }
```

Output: Enter dollars: 11
Rupees are: 880
=== Code Execution Successful ===

Figure 9: dollar to rupee



```
1 #include <stdio.h>
2 int main() {
3     int rupees;
4     int dollars;
5     printf("Enter rupees: ");
6     scanf("%d", &rupees);
7     dollars = rupees / 80;
8     printf("Dollars = %d\n", dollars);
9     return 0;
10 }
```

Output: Enter rupees: 5800
Dollars = 72
=== Code Execution Successful ===

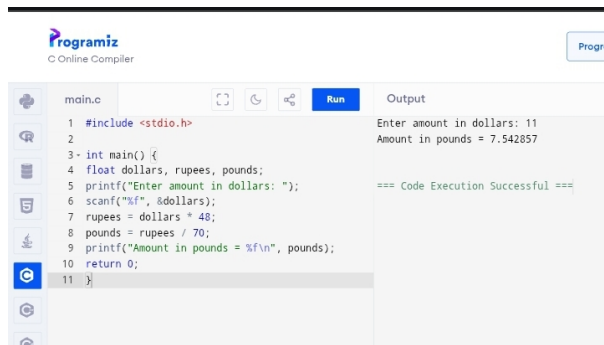
Figure 10:

10. Convert dollars into pounds (1\$=48Rs, 1 pound=70Rs)

```
1
2 #include <stdio.h>
3
4 int main() {
5     float dollars, rupees, pounds;
6     printf("Enter amount in dollars: ");
7     scanf("%f", &dollars);
8     rupees = dollars * 48;
9     pounds = rupees / 70;
10    printf("Amount in pounds = %f\n", pounds);
11    return 0;
12 }
```

11. Convert grams into kg

```
1 #include <stdio.h>
2 int main() {
3     float grams, kg;
4     printf("Enter weight in grams: ");
5     scanf("%f", &grams);
6     kg = grams / 1000;
7     printf("Weight = %f\n", kg);
8     return 0;
9 }
```



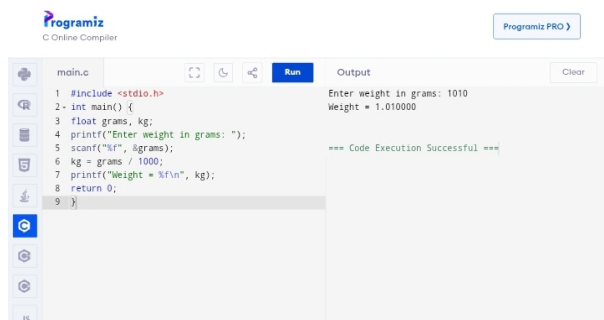
```
main.c
1 #include <stdio.h>
2
3 int main() {
4     float dollars, rupees, pounds;
5     printf("Enter amount in dollars: ");
6     scanf("%f", &dollars);
7     rupees = dollars * 48;
8     pounds = rupees / 70;
9     printf("Amount in pounds = %f\n", pounds);
10    return 0;
11 }
```

Output

Enter amount in dollars: 11
Amount in pounds = 7.542857

=== Code Execution Successful ===

Figure 11: dollar in pound



```
main.c
1 #include <stdio.h>
2 int main() {
3     float grams, kg;
4     printf("Enter weight in grams: ");
5     scanf("%f", &grams);
6     kg = grams / 1000;
7     printf("Weight = %f\n", kg);
8     return 0;
9 }
```

Output

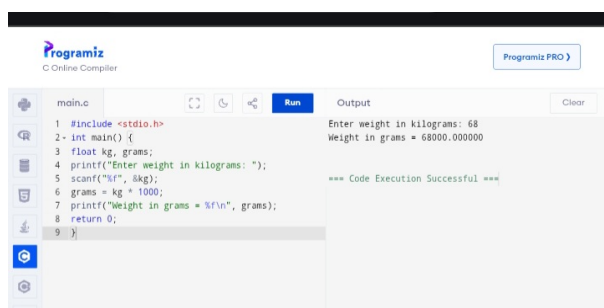
Enter weight in grams: 1010
Weight = 1.010000

=== Code Execution Successful ===

Figure 12: grams in kg

12. Convert kg into grams

```
1 #include <stdio.h>
2 int main() {
3     float kg, grams;
4     printf("Enter weight in kilograms: ");
5     scanf("%f", &kg);
6     grams = kg * 1000;
7     printf("Weight in grams = %f\n", grams);
8     return 0;
9 }
```



```
main.c
1 #include <stdio.h>
2 int main() {
3     float kg, grams;
4     printf("Enter weight in kilograms: ");
5     scanf("%f", &kg);
6     grams = kg * 1000;
7     printf("Weight in grams = %f\n", grams);
8     return 0;
9 }
```

Output

Enter weight in kilograms: 68
Weight in grams = 68000.000000

=== Code Execution Successful ===

Figure 13: kg in gram

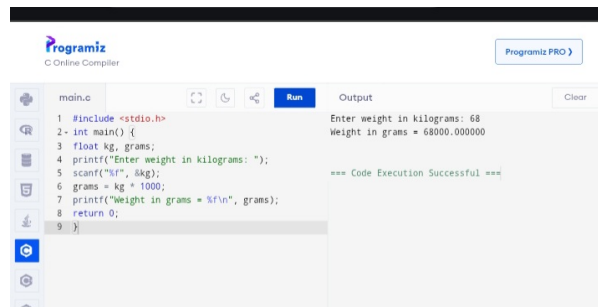


Figure 14: bytes conversion

13. Convert bytes into KB, MB, GB

```

1 #include <stdio.h>
2 int main() {
3     float bytes, kb, mb, gb;
4     printf("Enter size in bytes: ");
5     scanf("%f", &bytes);
6     kb = bytes / 1024;
7     mb = kb / 1024;
8     gb = mb / 1024;
9     printf("Size in KB = %f\n", kb);
10    printf("Size in MB = %f\n", mb);
11    printf("Size in GB = %f\n", gb);
12
13    return 0;
14 }
```

14. Celsius to Fahrenheit

```

1 #include <stdio.h>
2 int main() {
3     float celsius, fahrenheit;
4     printf("Enter temperature in Celsius: ");
5     scanf("%f", &celsius);
6     fahrenheit = (9.0 / 5.0) * celsius + 32;
7     printf("Temperature in Fahrenheit = %f\n", fahrenheit);
8
9     return 0;
10 }
```

15. Fahrenheit to Celsius

```

1
2
3
4 #include <stdio.h>
5 int main() {
```

```

1 #include <stdio.h>
2 int main() {
3     float celsius, fahrenheit;
4     printf("Enter temperature in Celsius: ");
5     scanf("%f", &celsius);
6     fahrenheit = (9.0 / 5.0) * celsius + 32;
7     printf("Temperature in Fahrenheit = %f\n",
8           fahrenheit);
9
10    return 0;
11 }

```

Output: Enter temperature in Celsius: 80
Temperature in Fahrenheit = 176.000000

=== Code Execution Successful ===

Figure 15: celcius in fahrenheit

```

1 #include <stdio.h>
2 int main() {
3     float fahrenheit, celsius;
4     printf("Enter temperature in Fahrenheit");
5     scanf("%f", &fahrenheit);
6
7     celsius = (5.0 / 9.0) * (fahrenheit - 32);
8     printf("Temperature in Celsius = %f\n", celsius);
9
10    return 0;
11 }

```

Output: Enter temperature in Fahrenheit: 5
Temperature in Celsius = -17.777779

=== Code Execution Successful ===

to celcius

```

6 float fahrenheit, celsius;
7 printf("Enter temperature in Fahrenheit: ");
8 scanf("%f", &fahrenheit);
9
10 celsius = (5.0 / 9.0) * (fahrenheit - 32);
11
12 printf("Temperature in Celsius = %f\n", celsius);
13
14 return 0;
15 }

```

16. Calculate interest

```

1
2 #include <stdio.h>
3 int main() {
4     float p, r, t, i;
5     printf("Enter principal amount: ");
6     scanf("%f", &r);
7     printf("Enter time (years): ");
8     scanf("%f", &t);
9     i = (p * r * t) / 100;
10    printf("Simple Interest = %f\n", i);
11    return 0;
12 }

```

```

1 #include <stdio.h>
2 int main() {
3     float p, r, t, i;
4     printf("Enter principal amount: ");
5     scanf("%f", &r);
6     printf("Enter time (years): ");
7     scanf("%f", &t);
8     i = (p * r * t) / 100;
9     printf("Simple Interest = %f\n", i);
10    return 0;
11 }

```

Output: Enter principal amount: 100100
Enter time (years): 2
Simple Interest = 70.000000
=== Code Execution Successful ===

Figure 16: simple intrest

```

1 #include <stdio.h>
2 int main() {
3     float L, area, perimeter;
4     printf("Enter side length of square: ");
5     scanf("%f", &L);
6     area = L * L;
7     perimeter = 4 * L;
8     printf("Area of square = %f\n", area);
9     printf("Perimeter of square = %f\n", perimeter);
10
11    return 0;
12 }

```

Output: Enter side length of square: 25
Area of square = 625.000000
Perimeter of square = 100.000000
=== Code Execution Successful ===

Figure 17: are of square

17. Area & perimeter of a square

```

1 #include <stdio.h>
2 int main() {
3     float L, area, perimeter;
4     printf("Enter side length of square: ");
5     scanf("%f", &L);
6     area = L * L;
7     perimeter = 4 * L;
8     printf("Area of square = %f\n", area);
9     printf("Perimeter of square = %f\n", perimeter);
10
11    return 0;
12 }

```

18. Area & perimeter of a rectangle

```

1 #include <stdio.h>
2 int main() {
3     float L, B, area, perimeter;
4     printf("Enter length of rectangle: ");
5     scanf("%f", &L);
6     printf("Enter breadth of rectangle: ");
7     scanf("%f", &B);
8     area = L * B;

```

```

1 #include <stdio.h>
2 int main() {
3     float L, B, area, perimeter;
4     printf("Enter length of rectangle: ");
5     scanf("%f", &L);
6     printf("Enter breadth of rectangle: ");
7     scanf("%f", &B);
8     area = L * B;
9     perimeter = 2 * (L + B);
10    printf("Area of rectangle = %f\n", area);
11    printf("Perimeter of rectangle = %f\n",
12          perimeter);
13 }

```

Output: Enter length of rectangle: 6
Enter breadth of rectangle: 4
Area of rectangle = 24.000000
Perimeter of rectangle = 20.000000
=== Code Execution Successful ===

Figure 18: area of rectangle

```

1 #include <stdio.h>
2 int main() {
3     float R, area;
4     printf("Enter radius of circle: ");
5     scanf("%f", &R);
6     area = (22.0 / 7.0) * R * R;
7     printf("Area of circle = %f\n", area);
8     return 0;
9 }

```

Output: Enter radius of circle: 7
Area of circle = 154.000000
=== Code Execution Successful ===

Figure 19: area of circle

```

9 perimeter = 2 * (L + B);
10 printf("Area of rectangle = %f\n", area); printf("Perimeter of
    rectangle = %f\n", perimeter);
11
12     return 0;
13 }

```

19. Area of a circle

```

1 #include <stdio.h>
2 int main() {
3     float R, area;
4     printf("Enter radius of circle: ");
5     scanf("%f", &R);
6     area = (22.0 / 7.0) * R * R;
7     printf("Area of circle = %f\n", area);
8     return 0;
9 }

```

[?]

20. Area of a triangle

```

1
2 #include <stdio.h>
3

```

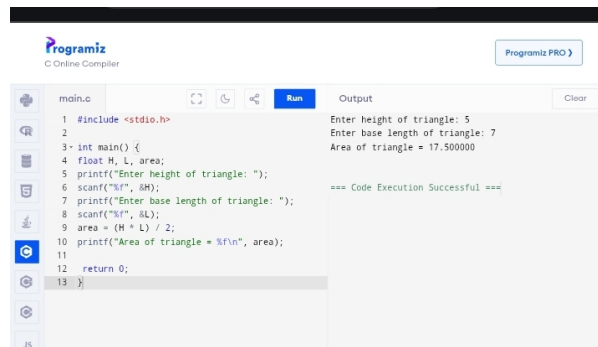


Figure 20: area of triangle

```

4 int main() {
5 float H, L, area;
6 printf("Enter height of triangle: ");
7 scanf("%f", &H);
8 printf("Enter base length of triangle: ");
9 scanf("%f", &L);
10 area = (H * L) / 2;
11 printf("Area of triangle = %f\n", area);
12
13 return 0;
14 }

```

21. Net salary (Allowance=10%, Deduction=3%)

```

1
2 #include <stdio.h>
3
4 int main() {
5 float gross, allowance, deduction, net;
6
7 printf("Enter gross salary: ");
8 scanf("%f", &gross);
9
10 allowance = gross * 0.10;
11 deduction = gross * 0.03;
12
13 net = gross + allowance - deduction;
14
15 printf("Net Salary = %f\n", net);
16
17 return 0;
18 }

```

22. Net sales with 10% discount

1

C Online Compiler

```

main.c
1 #include <stdio.h>
2
3 int main() {
4     float gross, allowance, deduction, net;
5
6     printf("Enter gross salary: ");
7     scanf("%f", &gross);
8
9     allowance = gross * 0.10;
10    deduction = gross * 0.03;
11
12    net = gross + allowance - deduction;
13
14    printf("Net Salary = %f\n", net);
15
16    return 0;
17 }
18

```

Output

```

Enter gross salary: 100010
Net Salary = 107010.703125

=== Code Execution Successful ===

```

Figure 21: net salary

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```

main.c
1
2 #include <stdio.h>
3
4
5 int main() {
6     float gross, discount, net;
7
8     printf("Enter gross sales: ");
9     scanf("%f", &gross);
10
11    discount = 0.10 * gross;
12    net = gross - discount;
13
14    printf("Net Sales = %f\n", net);
15
16    return 0;
17 }

```

Output

```

Enter gross sales: 1000
Net Sales = 900.000000

=== Code Execution Successful ===

```

Figure 22: net_{sales}

```

2 #include <stdio.h>
3
4 int main() {
5     float gross, discount, net;
6
7     printf("Enter gross sales: ");
8     scanf("%f", &gross);
9
10    discount = 0.10 * gross;
11    net = gross - discount;
12
13    printf("Net Sales = %f\n", net);
14
15    return 0;
16 }

```

23. Average & total of three subjects

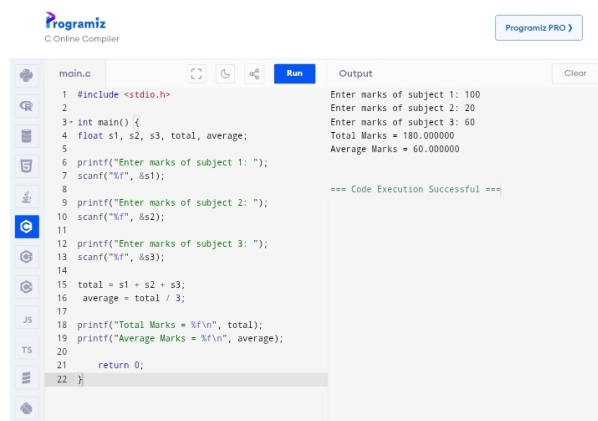


Figure 23: avg marks

```

2 #include <stdio.h>
3
4 int main() {
5     float s1, s2, s3, total, average;
6
7     printf("Enter marks of subject 1: ");
8     scanf("%f", &s1);
9
10    printf("Enter marks of subject 2: ");
11    scanf("%f", &s2);
12
13    printf("Enter marks of subject 3: ");
14    scanf("%f", &s3);
15
16    total = s1 + s2 + s3;
17    average = total / 3;
18
19    printf("Total Marks = %f\n", total);
20    printf("Average Marks = %f\n", average);
21
22    return 0;
23 }

```

24. Swap two values

```

1
2 #include <stdio.h>
3
4 int main() {
5     int a, b, temp;
6
7     printf("Enter first number: ");
8     scanf("%d", &a);
9
10    printf("Enter second number: ");

```

```
main.c
1 #include <stdio.h>
2
3 int main() {
4     int a, b, temp;
5
6     printf("Enter first number: ");
7     scanf("%d", &a);
8
9     printf("Enter second number: ");
10    scanf("%d", &b);
11
12    printf("Before swapping: a = %d, b = %d\n", a, b);
13
14    temp = a;
15    a = b;
16    b = temp;
17
18    printf("After swapping a = %d, b = %d\n", a, b);
19
20    return 0;
21 }
```

Output

```
Enter first number: 7
Enter second number: 9
Before swapping: a = 7, b = 9
After swapping a = 9, b = 7

=== Code Execution Successful ===
```

Figure 24: swiping

```
11 scanf("%d", &b);
12
13 printf("Before swapping: a = %d, b = %d\n", a, b);
14
15 temp = a;
16 a = b;
17 b = temp;
18
19 printf("After swapping a = %d, b = %d\n", a, b);
20
21 return 0;
22 }
```