

1. Calculate CGST and SGST for a product and print the total price to pay {CGST=9%, SGST=11%}

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main()
5  {
6      double prize;
7      cout<<"Enter the Prize amount: ";
8      cin>>prize;
9      double cgst = prize * 0.09;
10     double sgst = prize * 0.11;
11     double total = prize + cgst + sgst;
12     cout<<"CGST: "<<cgst<<endl;
13     cout<<"SGST: "<<sgst<<endl;
14     cout<<"Total ="<<total<<endl;
15     return 0;
16 }
17
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
● PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter the Prize amount: 150
CGST: 13.5
SGST: 16.5
Total =180
○ PS M:\C++\basic>
```

2. Write a program to read the marks of 5 subjects through the keyboard Find out the aggregate and percentage of marks obtained by the student Assume maximum marks that can be obtained by a student in each subject as 100

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int marks[5], total = 0;
6      cout << "Enter marks of 5 subjects: ";
7      for(int i = 0; i < 5; i++) {
8          cin >> marks[i];
9          total += marks[i];
10     }
11     double percentage = (total / 500.0) * 100;
12     cout << "Total: " << total << " Percentage: " << percentage << "%" << endl;
13     return 0;
14 }
15
16
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
● PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter marks of 5 subjects: 98 84 76 86 78
Total: 422 Percentage: 84.4%
○ PS M:\C++\basic>
```

3. Write a program to read a four digit number through the keyboard and calculate the sum of its digits

```
B76.cpp > ...
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int num, sum = 0;
6      cout << "Enter a four-digit number: ";
7      cin >> num;
8      while (num) {
9          sum += num % 10;
10         num /= 10;
11     }
12     cout << "Sum of digits: " << sum << endl;
13     return 0;
14 }
15
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter a four-digit number: 1234
Sum of digits: 10
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter a four-digit number: 2345
Sum of digits: 14
```

4. An ATM contains Indian currency notes of 100 500 and 1000 To withdraw cash from this ATM, the user has to enter the number of notes he/she wants of each currency, i.e., of 100 500 and 1000 Write a program to calculate the total amount withdrawn by the person from the ATM in rupees

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int n100, n500, n1000;
6      cout << "Enter number of 100, 500, and 1000 notes: ";
7      cin >> n100 >> n500 >> n1000;
8      int total = (n100 * 100) + (n500 * 500) + (n1000 * 1000);
9      cout << "Total amount withdrawn: " << total << " INR" << endl;
10     return 0;
11 }
12
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter number of 100, 500, and 1000 notes: 10
5
1
Total amount withdrawn: 4500 INR
PS M:\C++\basic>
```

5. Write a program to calculate age based on input of date, month and year

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int birthYear, birthMonth, birthDay, currYear, currMonth, currDay;
6      cout << "Enter birth date (YYYY MM DD): ";
7      cin >> birthYear >> birthMonth >> birthDay;
8      cout << "Enter current date (YYYY MM DD): ";
9      cin >> currYear >> currMonth >> currDay;
10     int age = currYear - birthYear;
11     if (currMonth < birthMonth || (currMonth == birthMonth && currDay < birthDay))
12         age--;
13     cout << "Your age is: " << age << " years" << endl;
14     return 0;
15 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter birth date (YYYY MM DD): 2004 11 01
Enter current date (YYYY MM DD): 2025 03 01
Your age is: 20 years
PS M:\C++\basic>
```

6. Collect three run time input from user Add together the first two numbers and then multiply this total by the third Display the answer as "The answer is :"[Answer]

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      double a, b, c;
6      cout << "Enter three numbers: ";
7      cin >> a >> b >> c;
8      cout << "The answer is: " << (a + b) * c << endl;
9      return 0;
10 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter three numbers: 10
2
3
The answer is: 36
PS M:\C++\basic>
```

7. Program to print only the added fraction of any two number {Input: 2.356, 3.5678 Output: 0.9238}

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      double num1, num2;
6      cout << "Enter two numbers: ";
7      cin >> num1 >> num2;
8      cout << "Fraction part sum: " << (num1 + num2) - (int)(num1 + num2) << endl;
9      return 0;
10 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter two numbers: 2.356
3.5678
Fraction part sum: 0.9238
PS M:\C++\basic>
```

8. Program to calculate hours, minutes and seconds for a given input days

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int days;
6      cout << "Enter number of days: ";
7      cin >> days;
8      cout << "Hours: " << days * 24 << " Minutes: " << days * 1440 << " Seconds: " << days * 86400 << endl;
9      return 0;
10 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter number of days: 365
Hours: 8760 Minutes: 525600 Seconds: 31536000
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter number of days: 24
Hours: 576 Minutes: 34560 Seconds: 2073600
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter number of days: 1
Hours: 24 Minutes: 1440 Seconds: 86400
PS M:\C++\basic>
```

9. Program to print the unit digit of a given number Input: 1567, Output: 7

```
B76.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int num;
6      cout << "Enter a number: ";
7      cin >> num;
8      cout << "Unit digit: " << num % 10 << endl;
9      return 0;
10 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter a number: 210
Unit digit: 0
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter a number: 232
Unit digit: 2
PS M:\C++\basic>
```

10. Program to print the MSB digit of given number {Input :1567, Output: 1}

```
B76.cpp > ...
1  #include <iostream>
2  #include <math.h>
3  using namespace std;
4
5  int main() {
6      int num;
7      cout << "Enter a number: ";
8      cin >> num;
9      int msb = num / pow(10, (int)log10(num));
10     cout << "MSB digit: " << msb << endl;
11     return 0;
12 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter a number: 2345
MSB digit: 2
PS M:\C++\basic>
```

11. Program to calculate the sum from 'M number to 'N number.{Input M= 5 N= 10 ,Output =45

```
B76.cpp > ...
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int M, N, sum = 0;
6      cout << "Enter M and N: ";
7      cin >> M >> N;
8      for (int i = M; i <= N; i++) sum += i;
9      cout << "Sum: " << sum << endl;
10     return 0;
11 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS M:\C++\basic> cd "m:\C++\basic\" ; if ($?) { g++ B76.cpp -o B76 } ; if ($?) { .\B76 }
Enter M and N: 5 10
Sum: 45
PS M:\C++\basic>
```