


Quiz 4 (DS-B)
B

Roll # _____

Name _____

<pre>void oddFibonacciSum(int num) { int a = 0, b = 1, sum = 0; while (b <= num) { if (b % 2 != 0) { sum += b; } int next = a + b; a = b; b = next;} cout << "Sum of odd Fibonacci numbers up to " << num << ": " << sum << endl;} int main() { int totalSum = 0; for (int i = 1; i <= 4; ++i) { totalSum += i; cout << "Current totalSum: " << totalSum << endl; for (int j = 1; j <= 3; ++j) { if (j % 2 == 1) { oddFibonacciSum(i * j);}} return 0;}</pre>	<p>Output/Error :</p> <p>Current totalSum: 1 Sum of odd Fibonacci numbers up to 1: 2 Sum of odd Fibonacci numbers up to 3: 5 Current totalSum: 3 Sum of odd Fibonacci numbers up to 2: 2 Sum of odd Fibonacci numbers up to 6: 10 Current totalSum: 6 Sum of odd Fibonacci numbers up to 3: 5 Sum of odd Fibonacci numbers up to 9: 10 Current totalSum: 10 Sum of odd Fibonacci numbers up to 4: 5 Sum of odd Fibonacci numbers up to 12: 10</p>
<pre>int main() { for (char i = 'D'; i <= 'D'; i++) { for (char j = 'C'; j <= 'C'; j++) { for (char k = 'B'; k <= 'C'; k++) { for (char l = 'D'; l <= 'D'; l++) { for (char m = 'C'; m <= 'C'; m++) { for (char n = 'B'; n <= 'B'; n++) { for (char o = 'X'; o <= 'X'; o++) { cout << i << j << k << l << m << n << o << endl; } } } } } } } return 0;}</pre>	<p>Output/Error :</p> <p>DCBDCBX DCCDCBX</p>

<pre> int main() { int n = 5; for (int i = 1; i <= n; i++) { for (int j = 1; j <= n; j++) { if (i == 1 i == n j == 1 j == n) { cout << "O "; } else if ((i + j) % 2 == 0) { if (i % 2 == 0) { cout << "& "; } else { cout << "% "; } } else { cout << "= "; } } cout << endl; } for (int k = 0; k < 5; k++) { cout << "XY "; } cout << endl; return 0; } </pre>	<p>Output/Error :</p> <pre> O O O O O O & = & O O = % = O O & = & O O O O O O XY XY XY XY XY </pre>
<pre> int main() { int n = 5; for (int i = 1; i <= n; i++) { for (int j = n; j > i; j--) cout << " "; for (int j = 1; j <= (2 * i - 1); j++) { if (j == 1 j == (2 * i - 1)) { int sum = i + j; if (sum % 3 == 0) cout << '*'; else if (sum % 3 == 1) cout << '#'; else cout << '@'; } else { cout << ' '; } } cout << endl; } for (int i = n - 1; i >= 1; i--) { for (int j = n; j > i; j--) cout << " "; for (int j = 1; j <= (2 * i - 1); j++) { if (j == 1 j == (2 * i - 1)) { int sum = i + j; </pre>	<p>Output/Error :</p> 

```

        if (sum % 3 == 0)
            cout << '*';
        else if (sum % 3 == 1)
            cout << '#';
        else
            cout << '@';
    } else {
        cout << ' ';
    }
    cout << endl;
}
return 0;
}

```

```

int main() {
    int n = 5;
    for (int i = n; i >= 0; i--) {
        for (int j = n; j > i; j--)
            cout << " ";

        int C = 1;
        for (int j = 0; j <= i; j++) {
            cout << C << " ";

            C = C * (i - j) / (j + 1);
        }

        cout << endl;
    }
    return 0;
}

```

Output/Error :

```

1 5 10 10 5 1
1 4 6 4 1
1 3 3 1
1 2 1
1 1
1

```

Q:Write a function named calculateInterest that calculates the simple interest for a given principal amount, rate of interest, and time period

```
double calculateInterest(double principal, double rate, double time) {  
    double simpleInterest = (principal * rate * time) / 100;  
    return simpleInterest;}  
  
int main() {  
    double principal, rate, time;  
    cout << "Enter principal amount: ";  
    cin >> principal;  
    cout << "Enter rate of interest: ";  
    cin >> rate;  
    cout << "Enter time period (in years): ";  
    cin >> time;  
    double interest = calculateInterest(principal, rate, time);  
    cout << "Simple Interest: " << interest << endl;  
    return 0;}
```