Task 6

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Questions:

1. In yesterday's class Cmath header file functions like (power , round , log) are covered , so apart from

these function use any 5 functions.

2. Using a for loop, find the sum of the numbers till the user provides value.

3. Using switch case take the temperature from the user and change according to user.

4. Using while loop change decimal to binary.

5. To calculate power of a number using for loop.

6. Example of brake and continue statement.

Answers:

```
#include <iostream>
#include <cmath>
using namespace std;

int main() {
    double x=2.5;
    cout << "Square root of " << x << " is " << sqrt(x) << endl;
    cout << "Ceil of " << x << " is " << ceil(x) << endl;
    cout << "Floor of " << x << " is " << floor(x) << endl;
    cout << "Absolute value of " << x << " is " << abs(x) << endl;
    cout << "Exponential of " << x << " is " << exp(x) << endl;

    int n, sum=0;
    cout << "Enter a number: ";
    cin >> n;
    for (int i=1; i<=n; ++i) {
        sum += i;
    }
    cout << "Sum of numbers till " << n << " is " << sum << endl;

    double temp;
    cout << "Enter temperature in Celsius: ";
    cin >> temp;
    int choice;
    cout << "1. Convert to Fahrenheit\n2. Convert to Kelvin\nEnter your
choice: ";
    cin >> choice;
    switch (choice) {
        case 1:
```

```
            temp = temp * 9 / 5 + 32;
            cout << "Temperature in Fahrenheit: " << temp << endl;
            break;
        case 2:
            temp = temp + 273.15;
            cout << "Temperature in Kelvin: " << temp << endl;
            break;
        default:
            cout << "Invalid choice!" << endl;
    }

    int decimal, binary=0, base=1;
    cout << "Enter a decimal number: ";
    cin >> decimal;
    while (decimal > 0) {
        binary += (decimal % 2) * base;
        decimal /= 2;
        base *= 10;
    }
    cout << "Binary equivalent is " << binary << endl;

    double base_num, result=1;
    int exponent;
    cout << "Enter base number: ";
    cin >> base_num;
    cout << "Enter exponent: ";
    cin >> exponent;
    for (int i=0; i<exponent; ++i) {
        result *= base_num;
    }
    cout << "Result is " << result << endl;

    int i=0;
    while (i < 5) {
        if (i == 2) {
            i++;
            continue;
        }
        if (i == 4) {
            break;
        }
        cout << "i: " << i << endl;
        i++;
    }

    return 0;
}
```