

## Task # 01

```
#include <iostream>

int main()
{
    int input, ans, count = 1;

    std::cout << "Enter a Number: ";
    std::cin >> input;

    for (int i=1; i<=20; i++) {
        for (int j=1; j<=10; j++) {
            ans = input *count;
            if(i<=3) {
                std::cout << ans << "\t";
            }
            count ++;
        }
        std::cout << "\n";
    }
    return 0;
}
```

## Task # 02

```
#include <iostream>

int main()
{
    std::cout << "Select Conversion:\n1.) Celsius to Fahrenheit??\n2.)\nFahrenheit to Celsius??\n";
    int choice;
    std::cin >> choice;
    float temperature;

    switch (choice)
    {
        case 1:
            std::cout << "Enter temperature: ";
            std::cin >> temperature;
            std::cout << "Temperature in Fahrenheit: " << (temperature * 9 / 5) +
32;
            break;
        case 2:
            std::cout << "Enter temperature: ";
            std::cin >> temperature;
            std::cout << "Temperature in Celsius: " << (temperature - 32) * 5 / 9;
            break;

        default:
            break;
    }
    return 0;
}
```

## Task # 03

```
#include <iostream>

struct calculator
{
    float f_num;
    float s_num;
};

int main()
{
    calculator ans;
    char oper;
    std::cout << "Enter first number, operator, second number (10 / 3): ";
    std::cin >> ans.f_num >> oper >> ans.s_num;

    switch (oper)
    {
        case '+':
            std::cout << "Answer = " << ans.f_num + ans.s_num;
            break;
        case '-':
            std::cout << "Answer = " << ans.f_num - ans.s_num;
            break;
        case '*':
            std::cout << "Answer = " << ans.f_num * ans.s_num;
            break;
        case '/':
            std::cout << "Answer = " << ans.f_num / ans.s_num;
            break;

        default:
            break;
    }
    return 0;
}
```

## Task # 04

```
#include <iostream>

int main()
{
    for (int i=0; i<20; i++) {
        for (int j=0; j<=20-i; j++) {
            std::cout << " ";
        }
        for (int k=1; k<=2*i-1; k++) {
            std::cout << "X";
        }
        std::cout << std::endl;
    }
    return 0;
}
```

## Task # 05

```
#include <iostream>

using namespace std;
int main() {
    float initial_amount;
    int years;
    float percent;
    // float output;

    cout << "Enter initial amount: ";
    cin >> initial_amount;

    cout << "Enter number of years: ";
    cin >> years;

    cout << "Enter interest rate (percent per year): ";
    cin >> percent;
    percent /= 100;

    // output = initial_amount;
    for (int i=0; i<2; i++) {
        // output = output + (output*percent);
        initial_amount = initial_amount + (initial_amount*percent);
    }
    cout << initial_amount;

    return 0;
}
```

## Task # 06

```
#include <iostream>
using namespace std;
int main() {
    int guests = 6;
    int track = guests;
    for (int i=0; i<3; i++) {
        guests *=--track;
    }
    cout << "Guests: " << guests;

    return 0;
}
```

## Task # 07

```
#include <iostream>

using namespace std;

void reverseNum1(int num) {
    int u, t, h;
    u= num % 10;
    t= (num / 10) % 10;
    h= (num / 100) % 10;

    cout << u << t << h << endl;
}

void reverseNum2(int num) {
    while (num>0)
    {
        cout << num%10; // This is for to get the last digit.
        num/=10; // This is for to remove the last digit
    }
}

int main() {
    reverseNum1(123); // 321
    reverseNum2(12345); // 54321
    return 0;
}
```

## Task # 08

```
#include <iostream>

int main() {
    int arr[] = {10, 20, 4, 45, 99, 55};
    int largest=0;
    int secLargest=0;
    for (int i=0; i< 6; i++) {
        if(arr[i] > largest) {
            secLargest = largest;
            largest = arr[i];
        } else if(arr[i] < largest && arr[i] > secLargest) {
            secLargest = arr[i];
        }
    }

    std::cout << secLargest << std::endl;
    return 0;
}
```