```
//-----------------------------------------------------------------
// File name: Exercise_1.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose:  The sum of integers from A to 500.
//
// Author: Mr. KEO Sopahnit
//-----------------------------------------------------------------

#include <iostream>
using namespace std;

int main() {
    //1. Store
    int num, total = 0;
    const int NUMBER = 500;

    //.2 Input
    cout << "Enter a number from 0 to 500: ";
    cin >> num;

    //3. Process
    for (int i = num; i <= NUMBER; ++i) {
        total += i;
    }

    //4. Output
    cout << "The sum of numbers from " << num << " to " << NUMBER << "
is: " << total << endl;

    return 0;
}
```

```
//-------------------------------------------------------------------
// File name: Exercise_2.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: calculates and outputs the value of x to the power of y.
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------

#include <iostream>
using namespace std;

int main(){
    //1. store
    int x,y;
    char choice;
    do{
    double result = 1.0;
    //2. Input
    cout<<"Enter the base inteder x: ";
    cin>>x;
    cout<<"Enter the exponent intergere y: ";
    cin>>y;
    //3. process
        for(int i=0 ; i<y ; ++i){
        result *=x;
        }
    //4. Output
    cout<< x << " power of "<< y<<" is "<< result<< endl;
    cout<<"Do you want to calculate more? (y/n): ";
    cin>>choice;

    }while(choice =='y'||choice =='Y');


    return 0;
}
```

```
//-------------------------------------------------------------------
// File name: Exercise_3.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: calculates and outputs the value of x to the power of y.
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------

#include <iostream>
using namespace std;

int main() {
    //1. Store
    double sum = 0;
    const int start = 1;
    const int end = 1000;
    double average;
    //2. Innput
    //3. Process

    for (int i = start; i <= end; ++i) {
        sum += i;
        average = sum / (end - start + 1);
        cout <<average<<endl;
    }
    //4. Output
    cout << "The average of integers from " << start << " to " << end <<
" is: " << average << endl;

    return 0;
}
```

```
//-------------------------------------------------------------------
// File name: Exercise_4.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: Find the product of all integers from A to 20 .
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------

#include<iostream>
using namespace std;

int main(){
    //1. store
    int A;
    long product = 1;
    //2. Input

    //3. process
    do{
    cout << "Enter an integer A (1 <= A <= 20): ";
    cin >> A;
    }while(A<1||A>20);

    for (int i = A; i <= 20; ++i) {
        product *= i;

        }
    //4. Output
    cout << "The product of integers from " << A << " to 20 is: " <<
product << endl;

    return 0;
}
```

```cpp
//-------------------------------------------------------------------
// File name: Exercise_5.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: A program that displays a multiplication table .
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------
#include <iostream>

using namespace std;

int main() {
    //1. Store
    int k;
    //2. Input

    cout << "Enter a number to display its multiplication table: ";
    cin >> k;
    cout << "Multiplication table for " << k << ":\n";
    //3. Process
    for (int i = 2; i <= 10; ++i) {
    //4. Output
        cout << k << " x " << i << " = " << (k * i) << endl;
    }

    return 0;
}
```

```cpp
//-------------------------------------------------------------------
// File name: Exercise_6.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: Display all numbers from zero to a number entered by the
user.
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------
#include <iostream>

using namespace std;

int main() {
    //1. Store
    int upperLimit;

    //2. Input

    cout << "Enter a positive integer: ";
    cin >> upperLimit;
    while (upperLimit < 0) {
        cout << "Invalid input. Please enter a non-negative integer: ";
        cin >> upperLimit;
    }
    cout << "Numbers from 0 to " << upperLimit << ":\n";
    //3. Process
    for (int i = 0; i <= upperLimit; ++i) {
        cout << i << " ";
    }
    cout << endl;
    return 0;
}
```

```
//-------------------------------------------------------------------
// File name: Exercise_7.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: The user enters two boundaries of range; display to
the screen all numbers from this range.
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------
#include <iostream>

using namespace std;

int main() {
    //1. store
    int start, end;

    //2. Innput

    cout << "Enter the first boundary of the range: ";
    cin >> start;
    cout << "Enter the second boundary of the range: ";
    cin >> end;

    //3. Process

    if (start > end) {
        swap(start, end);
    }

    cout << "\nNumbers in the range from " << start << " to " << end <<
":\n";
    for (int i = start; i <= end; ++i) {
        cout << i << " ";
    }
    cout << endl;
    cout << "\nEven numbers in the range:\n";
    for (int i = start; i <= end; ++i) {
        if (i % 2 == 0) {
            cout << i << " ";
        }
    }
    cout << endl;
    cout << "\nOdd numbers in the range:\n";
    for (int i = start; i <= end; ++i) {
        if (i % 2 != 0) {
            cout << i << " ";
        }
    }
    cout << endl;
    cout << "\nNumbers divisible by 7 in the range:\n";
    for (int i = start; i <= end; ++i) {
        if (i % 7 == 0) {
```

```
            cout << i << " ";
        }
    }
    cout << endl;

    return 0;
}
```

```
//-----------------------------------------------------------------
// File name: Exercise_7.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: The user enters two boundaries of range; display to
the screen all numbers from this range.
//
// Author: Mr. KEO Sopahnit
//-----------------------------------------------------------------
```

```
//-----------------------------------------------------------------
// File name: Exercise_7.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: The user enters two boundaries of range; display to
the screen all numbers from this range.
//
// Author: Mr. KEO Sopahnit
//-----------------------------------------------------------------
```

```
#include <iostream>

using namespace std;

int main() {
    //1. Store
    int start, end;
    long long sum = 0;
    //.2 Input
    cout << "Enter the first boundary of the range: ";
    cin >> start;
    cout << "Enter the second boundary of the range: ";
    cin >> end;

    //3. Process
    if (start > end) {
        swap(start, end);
    }
    for (int i = start; i <= end; ++i) {
        sum += i;
    }
    //4. Output
    cout << "The sum of numbers from " << start << " to " << end << " is:
" << sum << endl;

    return 0;
}
```

```cpp
//-------------------------------------------------------------------
// File name: Exercise_8.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose: The user enters two range boundaries. Calculate the sum of
all numbers of range.
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------
#include <iostream>

using namespace std;

int main() {
    //1. Store
    int start, end;
    long long sum = 0;
    //.2 Input
    cout << "Enter the first boundary of the range: ";
    cin >> start;
    cout << "Enter the second boundary of the range: ";
    cin >> end;

    //3. Process
    if (start > end) {
        swap(start, end);
    }
    for (int i = start; i <= end; ++i) {
        sum += i;
    }
    //4. Output
    cout << "The sum of numbers from " << start << " to " << end << " is:
" << sum << endl;

    return 0;
}
```

```cpp
//-------------------------------------------------------------------
// File name: Exercise_9.cpp
// Assign ID:
// Due Date: 09/06/24 at 11pm
//
// Purpose:  Calculate the sum of these numbers and output it to the
screen.
//
// Author: Mr. KEO Sopahnit
//-------------------------------------------------------------------
#include <iostream>

using namespace std;

int main() {
    //1. Store
    int number;
    int sum = 0;
    //2. Input

    cout << "Enter numbers (enter 0 to stop):" << endl;
    //3. Proces
    do {
        cin >> number;
        sum += number;
    } while (number != 0);
    //4. Output
    cout << "The sum of the entered numbers is: " << sum << endl;

    return 0;
}
```