Started on	Wednesday, 7 May 2025, 9:03 AM
State	Finished
Completed on	Wednesday, 7 May 2025, 10:41 AM
Time taken	1 hour 38 mins
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Write A CPP Program to create class Rectangle and calculate the volume of the rectangle, make use of static member variable in the class Rectangle.

For example:

Input	Result
2 3 5 5 8 7	Constructor called. Volume :30 Constructor called. Volume :280 Total objects: 2

Answer: (penalty regime: 0 %)

[Reset answer]

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

class Rectangle {
private:
    int length, breadth, height;
    static int objectCount;

public:

    Rectangle(int l, int b, int h) {
        length = l;
        breadth = b;
        height = h;
        objectCount++;
        cout << "Constructor called." << endl;
        cout << "Volume :" << volume() << endl;
    }
```

	Input	Expected	Got	
✔	2 3 5 5 8 7	Constructor called. Volume :30 Constructor called. Volume :280 Total objects: 2	Constructor called. Volume :30 Constructor called. Volume :280 Total objects: 2	✔
✔	10 2 30 40 5 60	Constructor called. Volume :600 Constructor called. Volume :12000 Total objects: 2	Constructor called. Volume :600 Constructor called. Volume :12000 Total objects: 2	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

Write a c++ program to display "Welcome to C++ Programming" into the output device?

For example:

Input	Result
-	Welcome to C++ Programming

Answer: (penalty regime: 0 %)

Reset answer

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

int main() {
    cout << "Welcome to C++ Programming" << endl;
    return 0;
}
```

	Input	Expected	Got	
✔	-	Welcome to C++ Programming	Welcome to C++ Programming	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Write a CPP Program to overload the first function to perform addition, second function to perform subtraction, third function to perform multiplication and the fourth function to perform division.

For example:

Test	Input	Result
1	10 20	Sum of two Numbers=30
	20 10	Difference of two Numbers=10
	10 25	Product of two Numbers=250
	30 15	Division of two Numbers=2

Answer: (penalty regime: 0 %)

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

int calculate(int a, int b) {
    return a + b;
}

int calculate(int a, int b, char op) {
    if (op == '-') return a - b;
    else if (op == '*') return a * b;
    else return 0;
}

float calculate(float a, float b, char op, bool isFloat) {
    if (op == '/') return a / b;
    else return 0;
}
```

	Test	Input	Expected	Got	
✔	1	10 20	Sum of two Numbers=30	Sum of two Numbers=30	✔
		20 10	Difference of two Numbers=10	Difference of two Numbers=10	
		10 25	Product of two Numbers=250	Product of two Numbers=250	
		30 15	Division of two Numbers=2	Division of two Numbers=2	
✔	2	23 33	Sum of two Numbers=56	Sum of two Numbers=56	✔
		34 44	Difference of two Numbers=-10	Difference of two Numbers=-10	
		10 20	Product of two Numbers=200	Product of two Numbers=200	
		20 5	Division of two Numbers=4	Division of two Numbers=4	
✔	3	240 360	Sum of two Numbers=600	Sum of two Numbers=600	✔
		600 780	Difference of two Numbers=-180	Difference of two Numbers=-180	
		23 44	Product of two Numbers=1012	Product of two Numbers=1012	
		8000 40	Division of two Numbers=200	Division of two Numbers=200	

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Write A CPP Program to allocate memory dynamically for an double variable. (Note: p_var = new typename;)

Answer: (penalty regime: 0 %)

Reset answer

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

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

int main() {

    double* p_var = new double;

    cin >> *p_var;

    cout << "Double Value is : " << *p_var << endl;

    delete p_var;

    return 0;
}
```

	Input	Expected	Got	
✔	10.01	Double Value is : 10.01	Double Value is : 10.01	✔
✔	20.01	Double Value is : 20.01	Double Value is : 20.01	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Incorrect

Mark 0.00 out of 20.00

Write a CPP Program to overload the Operator (++) i.e. on invoking it the incrementation should happen by some random value.

For example:

Test	Input	Result
1	25 25	50

Answer: (penalty regime: 0 %)

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Falling back to raw text area.

```cpp
#include <iostream>
#include <cstdlib>
#include <ctime>
using namespace std;

class Number {
    int value;

public:
    Number(int v) {
        value = v;
    }

    void display() {
        cout << value << endl;
    }

    Number operator++(int) {
```

	Test	Input	Expected	Got	
✖	1	25 25	50	25 72	✖
✖	2	10 45	55	25 64	✖
✖	3	45 23	68	25 64	✖

Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect

Marks for this submission: 0.00/20.00.