

C:\Users\cheth\OneDrive\Documents\Mod Q1.cpp - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

Project Classes Debug

Mod Q1.cpp

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     char c;
7     bool isVowel = false;
8
9     cout << "Enter a character: ";
10    cin >> c;
11
12    switch (c) {
13        case 'a':
14        case 'e':
15        case 'i':
16        case 'o':
17        case 'u':
18        case 'A':
19        case 'E':
20        case 'I':
21        case 'O':
22        case 'U':
23        isVowel = true;
24    }
25
26    if (isVowel) {
27        cout << c << " is a vowel" << endl;
28    } else {
29        cout << c << " is a consonant" << endl;
30    }
31
32    return 0;
33 }
```

C:\Users\cheth\OneDrive\Documents\Mod Q1.exe

```
Enter a character: A
A is a vowel
-----
Process exited after 3.78 seconds with return value 0
Press any key to continue . . .
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Shorten compiler paths

Compilation results...

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\cheth\OneDrive\Documents\Mod Q1.exe
- Output Size: 1.83260917663574 MiB
- Compilation Time: 6.25s
```

Line: 32 Col: 2 Sel: 0 Lines: 32 Length: 555 Insert Done parsing in 0.281 seconds

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1:51 PM 11/16/2023

C:\Users\cheth\OneDrive\Documents\Mod Q2.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug Mod Q1.cpp Mod Q2.cpp

```
1 #include <iostream>
2 #include <cmath>
3 using namespace std;
4
5 int main() {
6     int num, originalNum, remainder, n = 0, result = 0;
7     cout << "Enter an integer: ";
8     cin >> num;
9     originalNum = num;
10    while (originalNum != 0) {
11        originalNum /= 10;
12        ++n;
13    }
14    originalNum = num;
15    while (originalNum != 0) {
16        remainder = originalNum % 10;
17        result += pow(remainder, n);
18        originalNum /= 10;
19    }
20    if (result == num) {
21        cout << num << " is an Armstrong number." << endl;
22    } else {
23        cout << num << " is not an Armstrong number." << endl;
24    }
25    return 0;
26 }
```

C:\Users\cheth\OneDrive\Documents\Mod Q2.exe

Enter an integer: 153
153 is an Armstrong number.

Process exited after 3.432 seconds with return value 0
Press any key to continue . . .

Compiler Resources Compile Log Debug Find Results Close

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\cheth\OneDrive\Documents\Mod Q2.exe
- Output Size: 1.85575866699219 MiB
- Compilation Time: 0.53s

Line: 24 Col: 6 Sel: 0 Lines: 26 Length: 648 Insert Done parsing in 0.047 seconds

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1:55 PM 11/16/2023

C:\Users\cheth\OneDrive\Documents\Mod Q3.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug Mod Q1.cpp Mod Q2.cpp Mod Q3.cpp

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     for (int i = 1; i <= 5; i++) {
7         for (int j = 1; j <= i; j++) {
8             cout << i << " ";
9         }
10        cout << endl;
11    }
12
13    return 0;
14 }
```

C:\Users\cheth\OneDrive\Documents\Mod Q3.exe

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
-----
Process exited after 1.568 seconds with return value 0
Press any key to continue . . .
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Shorten compiler paths

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\cheth\OneDrive\Documents\Mod Q3.exe
- Output Size: 1.83212089538574 MiB
- Compilation Time: 0.47s
```

Line: 13 Col: 2 Sel: 0 Lines: 13 Length: 227 Insert Done parsing in 0 seconds

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C:\Users\cheth\OneDrive\Documents\Mod Q4.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug Mod Q1.cpp Mod Q2.cpp Mod Q3.cpp Mod Q4.cpp

```
1 #include <iostream>
2 using namespace std;
3
4 int countOccurrences(int arr[], int n, int x) {
5     int count = 0;
6     for (int i = 0; i < n; i++) {
7         if (arr[i] == x) {
8             count++;
9         }
10    }
11    return count;
12 }
13
14 int main() {
15     int arr[] = {5, 7, 8, 8, 5, 8, 7, 7};
16     int n = sizeof(arr) / sizeof(arr[0]);
17     int x = 7;
18
19     int occurrences = countOccurrences(arr, n, x);
20
21     cout << "Number of occurrences of " << x << ": " << occurrences << endl;
22
23     return 0;
24 }
```

C:\Users\cheth\OneDrive\Documents\Mod Q4.exe

Number of occurrences of 7: 3

Process exited after 1.186 seconds with return value 0

Press any key to continue . . .

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\cheth\OneDrive\Documents\Mod Q4.exe
- Output Size: 1.83266925811768 MiB
- Compilation Time: 0.64s

Line: 24 Col: 2 Sel: 0 Lines: 24 Length: 511 Insert Done parsing in 0.016 seconds

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C:\Users\cheth\OneDrive\Documents\Mod Q5.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug Mod Q1.cpp Mod Q2.cpp Mod Q3.cpp Mod Q4.cpp Mod Q5.cpp

```
15 double area() const override {
16     return length * width;
17 }
18 double perimeter() const override {
19     return 2 * (length + width);
20 }
21 };
22 class Triangle : public Shape {
23 private:
24     double side1;
25     double side2;
26     double side3;
27
28 public:
29     Triangle(double s1, double s2, double s3) : side1(s1), side2(s2), side3(s3) {}
30
31     double area() const override {
32         double s = (side1 + side2 + side3) / 2;
33         return (s * (s - side1) * (s - side2) * (s - side3));
34     }
35     double perimeter() const override {
36         return side1 + side2 + side3;
37     }
38 };
39 int main() {
40     Rectangle rectangle(4.0, 5.0);
41     Triangle triangle(3.0, 4.0, 5.0);
42     std::cout << "Rectangle - Area: " << rectangle.area() << ", Perimeter: " << rectangle.perimeter() << std::endl;
43     std::cout << "Triangle - Area: " << triangle.area() << ", Perimeter: " << triangle.perimeter() << std::endl;
44
45     return 0;
46 }
```

Select C:\Users\cheth\OneDrive\Documents\Mod Q5.exe

Rectangle - Area: 20, Perimeter: 18
Triangle - Area: 36, Perimeter: 12

Process exited after 4.421 seconds with return value 0
Press any key to continue . . .

Compiler (4) Resources Compile Log Debug Find Results Close

Line	Col	File	Message
15	19	C:\Users\cheth\OneDrive\Documents\Mod Q5.cpp	[Warning] override controls (override/final) only available with -std=c++11 or -std=gnu++11
18	24	C:\Users\cheth\OneDrive\Documents\Mod Q5.cpp	[Warning] override controls (override/final) only available with -std=c++11 or -std=gnu++11
31	19	C:\Users\cheth\OneDrive\Documents\Mod Q5.cpp	[Warning] override controls (override/final) only available with -std=c++11 or -std=gnu++11
35	24	C:\Users\cheth\OneDrive\Documents\Mod Q5.cpp	[Warning] override controls (override/final) only available with -std=c++11 or -std=gnu++11

Line: 6 Col: 44 Sel: 0 Lines: 46 Length: 1242 Insert Done parsing in 0.016 seconds

Current temp Near record

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C:\Users\cheth\OneDrive\Documents\Mod Q6.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug Mod Q1.cpp Mod Q2.cpp Mod Q3.cpp Mod Q4.cpp Mod Q5.cpp Mod Q6.cpp

```
21 void display_area()
22 {
23     double a;
24     a = (x * y) / 2;
25     cout << " Area of triangle = " << a << endl;
26 }
27 };
28 class rectangle : public shape
29 {
30 public:
31     void display_area()
32     {
33         double a;
34         a = x * y;
35         cout << " Area of rectangle = " << a << endl;
36     }
37 };
38 int main()
39 {
40     shape *s[2];
41     triangle t;
42     s[0] = &t;
43     rectangle r;
44     s[1] = &r;
45     cout << " Enter the value of x & y for triangle: ";
46     s[0]->get_data();
47     cout << " Enter the value of x & y for rectangle: ";
48     s[1]->get_data();
49     s[0]->display_area();
50     s[1]->display_area();
51     return 0;
52 }
```

C:\Users\cheth\OneDrive\Documents\Mod Q6.exe

Enter the value of x & y for triangle:

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\cheth\OneDrive\Documents\Mod Q6.exe
- Output Size: 1.83541584014893 MiB
- Compilation Time: 0.67s

Line: 52 Col: 2 Sel: 0 Lines: 52 Length: 983 Insert Done parsing in 0.078 seconds

Upcoming Earnings

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C:\Users\cheth\OneDrive\Documents\Mod Q7.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug Mod Q1.cpp Mod Q2.cpp Mod Q3.cpp Mod Q4.cpp Mod Q5.cpp Mod Q6.cpp Mod Q7.cpp

```
1 #include <iostream>
2 using namespace std;
3 class Increment {
4 private:
5     int value;
6 public:
7     Increment(int val) : value(val) {}
8     Increment& operator++() {
9         ++value;
10        return *this;
11    }
12    Increment operator++(int) {
13        Increment temp = *this;
14        ++value;
15        return temp;
16    }
17    void display() {
18        cout << "Value: " << value << endl;
19    }
20 };
21 int main() {
22     Increment obj(5);
23     cout << "Before increment: ";
24     obj.display();
25     ++obj;
26     cout << "After pre-increment: ";
27     obj.display();
28     obj++;
29     cout << "After post-increment: ";
30     obj.display();
31     return 0;
32 }
```

C:\Users\cheth\OneDrive\Documents\Mod Q7.exe

```
Before increment: Value: 5
After pre-increment: Value: 6
After post-increment: Value: 7

-----
Process exited after 8.058 seconds with return value 0
Press any key to continue . . .
```

Compiler Resources Compile Log Debug Find Results Close

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\cheth\OneDrive\Documents\Mod Q7.exe
- Output Size: 1.83395195007324 MiB
- Compilation Time: 0.45s

Line: 2 Col: 21 Sel: 0 Lines: 32 Length: 658 Insert Done parsing in 0.016 seconds

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2:07 PM 11/16/2023

