## Implement a 3D Vector class.

Classroom assignment: https://classroom.github.com/a/qlxLAY1j

Due before sun up 15/3/31

Implement all the functions required by a vector3.

A header file is included for you to start the project you are not to edit this file. You should run your own test code from the main method and check the expected result using the debugger.

If you right click on the definition and select "quick actions and refactoring" you can then select "Create definition of ..." and it will start off the method code for you. But the code will of course need to be completed.

```
MyVector3(sf::Vector2f t_sfVector);
        30
        31
        32
                     std::string toString();
        33
                     MyVector3 operat Ouick Actions and Refactorings... Ctrl+.
                                                                                        const;
                      MyVector3 operat
        35
                                                 Generate Graph of Include Files
                     MyVector3 operat
        36
                                                                                        onst;
                     MyVector3 operat Go To Definition

MyVector3 operat

Go To Definition

MyVector3 operat

Go To Declaration
                                                                                        const;
                                                                            Ctrl+F12
        38
                     Ctrl+K, Ctrl+T
                                                 Toggle Header / Code File
                     bool operator ==
        41
                               Run To Cursor
                                                                           Ctrl+F10
MyVector3 operator +(const MyVector3 t_right) const;

5 Create definition of 'operator+' in MyVector3.cpp r -(const MyVector3 t_right) const;

6 Copy signature of 'operator+' to clipboard r *(const double t_scalar) const;

7 Create Declaration / Definition r /(const double t_divisor) const;

8 Move Definition Location r +=(const MyVector3 t_right);
             MvVector3 operator -=(const MvVector3 t right):
            MyVector3 operator +(const MyVector3 t_right) const;
       120
                   ■MyVector3 MyVector3::operator+(const MyVector3 t_right) const
       121
       122
       123
                              return MyVector3();
       124
       125
       126
                  ₽/// <summary>
```

You will normally need to run the test a few times with different values to ensure correctness, you should leave all these tests in the main method for Pete to look at, but leave at least two per method.

Important you must include where you found the test value URL from the Internet (books or Josephs notes are not acceptable but should be checked anyway. Your examples (2) both need to be unique within the class so is any other students uses {1,2,3} + {4,5,6} for their addition test, you both of you will lose marks. No marks will be awarded for any method not accompanied with two test cases in the code.

You will also need to add an appropriate amount of [quality] comments.

• Do not break your code base, if it doesn't compile then Zero grade.

- Do not change the definition of the methods then when I add my test code it won't compile and Zero Grade will result.
- Create a new commit point for every group of one, two or three methods (no more than three methods can be coded in a single commit. Pete will take marks off for this).
- Comments need to be added before the method is written and updated as soon as the method is finished. [Pete will take marks off for a last pass with comments]

There is no need for a research document as you all know how to perform these vector operations and if not you must arrive at the same conclusion as the Internet (good parts).

You should start your project by accepting this GitHub classroom link (make sure to be logged in first then paste link)