

CSCI 201 – Computer Science 1

Introduction to data abstractions.

Homework 9. Creating a class for the VEE figure

Due date: Saturday March 30

Objectives: *Define a data abstraction, and implement and test it using C++ classes.*

Using the code in `Triangleclass` in `CourseFiles` as an example, construct a class `Vee`, which represents the Vee-shaped figure that you created for the lab assignment in Week 5.

Question 1: designing the class. Answer each of the following questions before you start on any code:

- (a) What data fields does the class need to define the appearance the Vee? What is the purpose of each?
- (b) We need two number fields for margins, so that the figure can be suitably positioned on the screen/file. How will we keep track of these?
- (c) Describe an appropriate format to read/write/store the data associated with the Vee objects.
- (d) Separately list the private and public fields and the methods that are needed for this class. Explain the header of each method.

Question 2: implementing the class . Write the complete code for the Vee class and compile it separately.

Using the `triangleTest` program as an example, write a test program that tests all the features of the Vee class. Make a script showing the compilation of the class, compilation of main, and tests.

What to submit Upload the answer to Question 1, script file from Question 2, and all code files (`.h`, `.cpp` and the main) to the folder `Homework 9` in your `CourseFiles` folder.