

CISC 1003

Group #: _____

Name: 1. _____

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Spring, 2022
Section T8

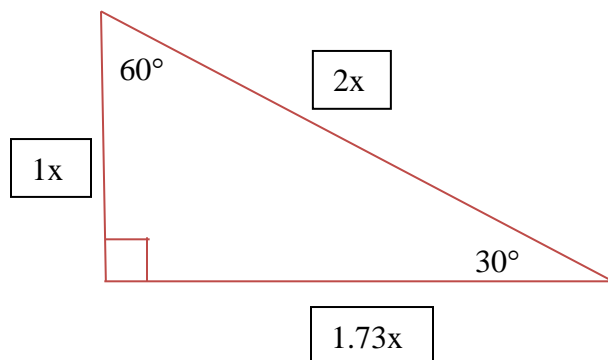
Unit B – Lab Assessment

Instructions:

1. For each project, first create an algorithm describing in detail how the robot solves the problem step by step. Write your algorithm in plain English as a numbered list of executable steps. Then create a corresponding VEXcode VR program and test it to make sure it works.
2. Submit your finished two projects as five files: 1) one PDF file containing the algorithms for the two projects 2) two PDF files for the two project programs 3) two .vrblocks files for the two project programs.

Project #1:

The following figure shows a right triangle with the angles and the ratio of each side given. Program the robot to use the **red** pen to draw this triangle with any size of your choice.



Project #2:

Program the robot to move to a position defined by two variables (x, y) representing the coordinates of the destination position. The robot is initially located at the lower-left corner of the playground (-900, -900). You should first create the two variables (x, y) on the VEXcode VR programming environment. Then in your program you should initialize (x, y) to the coordinates of the destination position of your choice. Your program, once run, will drive the robot to the position specified by the coordinates (x, y). Test your program by initialize your destination coordinates to (0, 900), (0, 0), and then (900, 0) respectively. Run the program to see if the robot will move to the above three positions respectively.