Lab 10 Marked Assignment 5 Solution
Friday Lab

Revised: 27 March 2010

Correctness

Vector 1	Vector 2	normalization
$(1, 2)$	$(-4, 3)$	$(2.23606797749979, 4.47213595499958)$
$(0, -1)$	$(3, 3)$	$(0, -4.24264068711928477)$

Design Question

The program (probably) gives a division by zero error. It should say to the user in a message box that the normalization is not defined when `vector1` is the zero vector and should not return a result.

Testing Question

These are the six categories:

1. $0 < |V_1| < |V_2|$ (given).

2. $0 < |V_2| < |V_1|$.

3. $0 < |V_1| = |V_2|$.

4. $0 = |V_1| < |V_2|$.

5. $0 = |V_2| < |V_1|$.

6. $0 = |V_2| = |V_1|$.

Give 2 marks if they describe 3 or more of these categories (other than the given one), give 1 mark if they describe 2 of these categories, and give 0 marks if they describe 0–1 of these categories.