CIS 227 Assignment 0

Assignment Details

Create a program that calculates the hypotenuse of a triangle, the area of a trapezoid, and the volume of a rectangle. The user must input the variables in the formulas

Program – 70

UX/UI – 35

Function - 35

Documentation – 30

Total Possible Points – 100

**Version 0.1.0**

| REVISION HISTORY | | | |
| --- | --- | --- | --- |
| DATE | VERSION | DESCRIPTION | AUTHOR |
| 1/19 | 0.1.0 | Created base requirements | Joseph Oudemolen |
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# INTRODUCTION

## PURPOSE

Ask user to select one of three mathematical calculations and allow user to input needed values for the given calculation

## DOCUMENT CONVENTIONS

Code uses functions for all 3 calculations so that they are removed from the main function

Code also uses a camelCase naming convention for all variables.

## REFERENCES

List any referenced document names or links.

# DESCRIPTION

## FEATURES

Calculates the hypotenuse of a triangle

Calculates the area of a trapezoid

Calculates the volume of a rectangle

## USER OVERVIEW

Define groups and describe user characteristics.

## ASSUMPTIONS / DEPENDENCIES

The code assumes that the user will only input numbers. If the user inputs a non-numeric character the code will react unpredictably.

# SYSTEM FEATURES

## SYSTEM FEATURE 1

|  |  |
| --- | --- |
| **DESCRIPTION AND PRIORITY** | Calculate the hypotenuse of a triangle |
| **STIMULUS / RESPONSE SEQUENCES** | Inputs must be obtained from the user |
| **FUNCTIONAL REQUIREMENTS** |  |

## SYSTEM FEATURE 2

|  |  |
| --- | --- |
| **DESCRIPTION AND PRIORITY** | Calculate the area of a trapezoid |
| **STIMULUS / RESPONSE SEQUENCES** | Inputs must be obtained from the user |
| **FUNCTIONAL REQUIREMENTS** |  |

## SYSTEM FEATURE 3

|  |  |
| --- | --- |
| **DESCRIPTION AND PRIORITY** | Calculate the volume of a rectangle |
| **STIMULUS / RESPONSE SEQUENCES** | Inputs must be obtained from the user |
| **FUNCTIONAL REQUIREMENTS** |  |

# REQUIREMENTS OF EXTERNAL INTERFACE

## USER INTERFACES

Describe product / user interface characteristics, including standards, style guides, constraints, functionality, and sample screens if applicable.

# APPENDICES

## APPENDIX A: GLOSSARY OF TERMS

Define all terms and unique acronyms employed throughout document and specific to project.

Variables side1 and side2 = both used for triangle calculation and trapezoid calculation

## APPENDIX B: ANALYSIS DOCUMENTATION

List file / document names / provided links to all diagrams, models, additional findings pertinent to technical specification development.

## APPENDIX C: ISSUES

List all unresolved issues, TBDs, pending decisions, findings required, conflicts, etc.

| ISSUES | | |
| --- | --- | --- |
| ID | DESCRIPTION | PARTY RESPONSIBLE |
| 001 | User input needs to be sanitized. Currently assumes input will be number | Joseph Oudemolen |
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