GD1M01 Fundamental Mathematical and Engineering Principles	**Summative Project Weightage (30%) Geometry for Games**	**Date of Issue:** 07th Jan 2019 **Submission Date/Time:** 29th Jan 2019, 3:00pm

Submission filename:
YYYY-MM-DD – GD1M01 – Geometry for Games – Student Name.zip

Project – Geometry for Games (Group Project):
Create the required source code for the given header file **"Geometry for Games Header.pdf".**

Implement tests to verify the correctness of the different functions that you implement.

Build Quality:
The source code is required to display the following features:

- Free of:
  - Build warnings at Warning Level 3 for all build targets.
  - Build errors at Warning Level 3 for all build targets.
  - All intermediate files, (.obj, .pdb, .ilk, …, files etc).
- An electronic copy of the source code (.h, .cpp), solution file (.sln) and project file (.vcxproj) are required to be submitted.
  - Name the source code folder as:
    GeometryProjectSource – Student Name
  - Name the solution as:
    GeometryProject.sln

Coding Standards:
The source code is required to display the following features:

- The Media Design School template header.
- Standardised naming convention for variables.
- Discrete Functions that perform the task reflected in their name.
- Appropriate use of commenting; especially, in complex areas of the code.
- Appropriate use of whitespace and indentation.
- Appropriate function headers as specified below:

```
/**********************
* name of the function: the task of the function
* @author: who is the author of the function
* @parameter: info about the parameters of the function
* @return: the return value of the function
********************/
```

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Runtime Quality:
The source code is required to display the following features:

- Free of:
  - Memory leaks.
  - Bugs.
  - Crashes.

Submission Checklist:
An electronic copy of the source folder including only, source code, solution file and project file are required as described in the build quality section. Also include the readme file indicating how many and which functions are implemented.

On 29th Jan 2019, submit via Web Dropbox, a zip named appropriately, with the following structure. The *italic font* indicates folders.

GD1M01 – Geometry for Games – Student Name.zip
GeometryProjectSource – Student Name
GeometryProject.sln
…Project and source code, etc.

Instructions:

1. **Files to be created :** main.cpp, geometry.h, geomtery.cpp, test.h, test.cpp
2. Write your test cases such that code keeps track of how many test scenarios were run (by keeping the count of it) and OUTPUT it.
3. **Do not rename or change the header file**.

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BSENGG - GD1M01 - Project - Geometry for Games – Assessment Criteria

Technical analysis and code implementation		**Weightage towards grade %**	**A** **(Range: 80% ≤ x ≤ 100%)** *80% to 100% of the functions are successfully implemented*	**B** **(Range: 65% ≤ x < 80%)** *65% to 79% of the functions are successfully implemented*	**C** **(Range: 50% ≤ x < 65%)** *50% to 64% of the functions are successfully implemented*	**D** **(Range: x < 50%)** *less than 50% of the functions are successfully implemented*
1.1	***Technical components*** ***– Functionality*** ***– Commenting*** ***– Implementation level***	**50.00%**	.	.	.	.
1.2	***Test scenarios*** ***– Functionality*** ***– Commenting*** ***–Implementation level***	**30.00%**		.	.	
1.3	***Coding Standard*** ***– Adherence to standard*** ***– Template header***	**10.00%**				
1.4	***Overall Build*** ***– Build quality*** ***– File structure*** ***– Runtime quality***	**10.00%**	.	.		