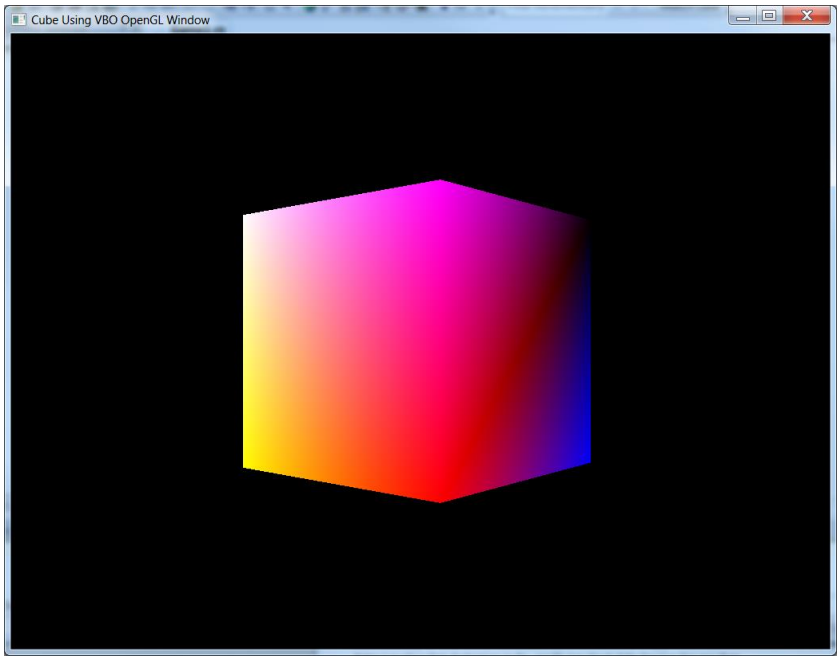
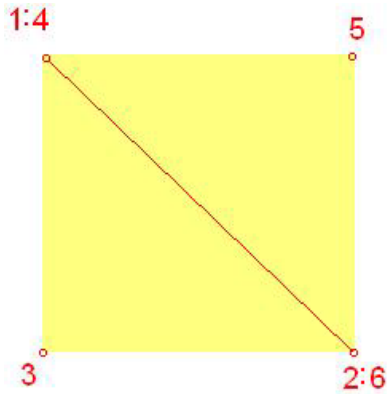
Exercises



Create a cube

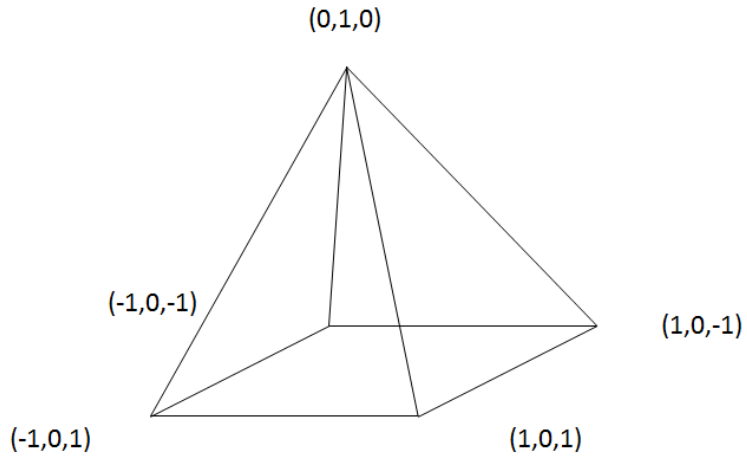
In this exercise you will create a basic cube. Create a new solution called Lab1Cube. Use the lab code provided, adding the appropriate method calls to main.cpp, to compile and run the code. In this example we have used an index buffer to cut down the number of vertices required to draw the cube.



It can be seen from Figure 1 that two of the six vertices are shared. Hence if we use an index buffer the number of vertices can be cut from six per face to four. Thus for the cube we reduce the total number of vertices from 36 (6 per face * 6 faces) to 24 (4 per face * 6 faces).

Exercises

1. Amend the code provided such that the displays solid colours for each face. Using the wiki page provided write a summary of how your code works giving annotated code examples. Attach your class, .cpp and .h files, to your page.



2. Use the diagram below as the basis for creating a pyramid class which inherits properties from the shapes class. Using the wiki page provided write a summary of how your code works giving annotated code examples. Attach your class, .cpp and .h files, to your page.
3. Using the wiki page provided on GCU Learn, write a summary of how the lab code works highlighting, with example code, any improvements.