## Game Project - Phase 1 (20 pts)

Some code to get you started can be downloaded from: https://bitbucket.org/summateaching/asteroids\_template.git

## Your first task to to read and fully understand what is happening in this code:

This code should compile on your system and launches a window that is just a black screen. Let's change this. First, note that all functions dealing with windows, keyboard interactions, drawing with OpenGL etc. are located in main.cpp. This project will allow you to practice with object-oriented programming. Provided is a ship class Ship.h/cpp. Like all good OOP design, any operation that involves the ship is a method within this class. A ship will draw itself, update it's position, rotate, etc. Familiarize yourself with these functions.

1. (10 pts) Adjust the ship class such that an asteroid ship is drawn to screen.



Here is an example of what a ship can look like. Your ship can look like whatever you like. *A square or circle ship is not allowed.* Making the ship's draw center to be (0,0) in your coordinate system will make your life easier down the road.

2. **(10 pts)** Create a similar class Asteroid.h/cpp and draw it to screen. Another example.



Your asteroid can look different, but **asteroids must be a filled concave polygon.** Again, make the asteroid's draw center to be (0,0).