

## **Milestone 2: Make the ship appear on the screen.**

For this milestone, we will create the `Ship` class, and make a ship appear on the screen. Both the ship and asteroids will be drawn on the screen as polygons. Because we will also use the class `Polygon` as a base class for other objects in our game, like the asteroids, we don't want to put any code specific to the ship, such as how to move it in response to key presses, into the `Polygon` class. Instead, make a new class called `Ship`, which is a subclass of `Polygon`.

Write the constructor for the subclass `Ship`. Remember that it needs to call the constructor in `Polygon` on the first line. To make things easier for future milestones, make sure your `Ship` instance is facing east (right) when `rotation` is 0. It should be positioned in the center of the screen.

Create an instance variable of type `Ship` in `Asteroids` to represent the spaceship that the player will control. Where should do you initialize/instantiate this variable? Remember that the `paint` method in `Asteroids` is called repeatedly, similar to the body of an infinite while loop.

Because the `Ship` class is a subclass of `Polygon`, it will inherit the `paint` method you wrote in Milestone 1. Call this method in the `paint` method in `Asteroids` to display your `Ship` instance on the screen.