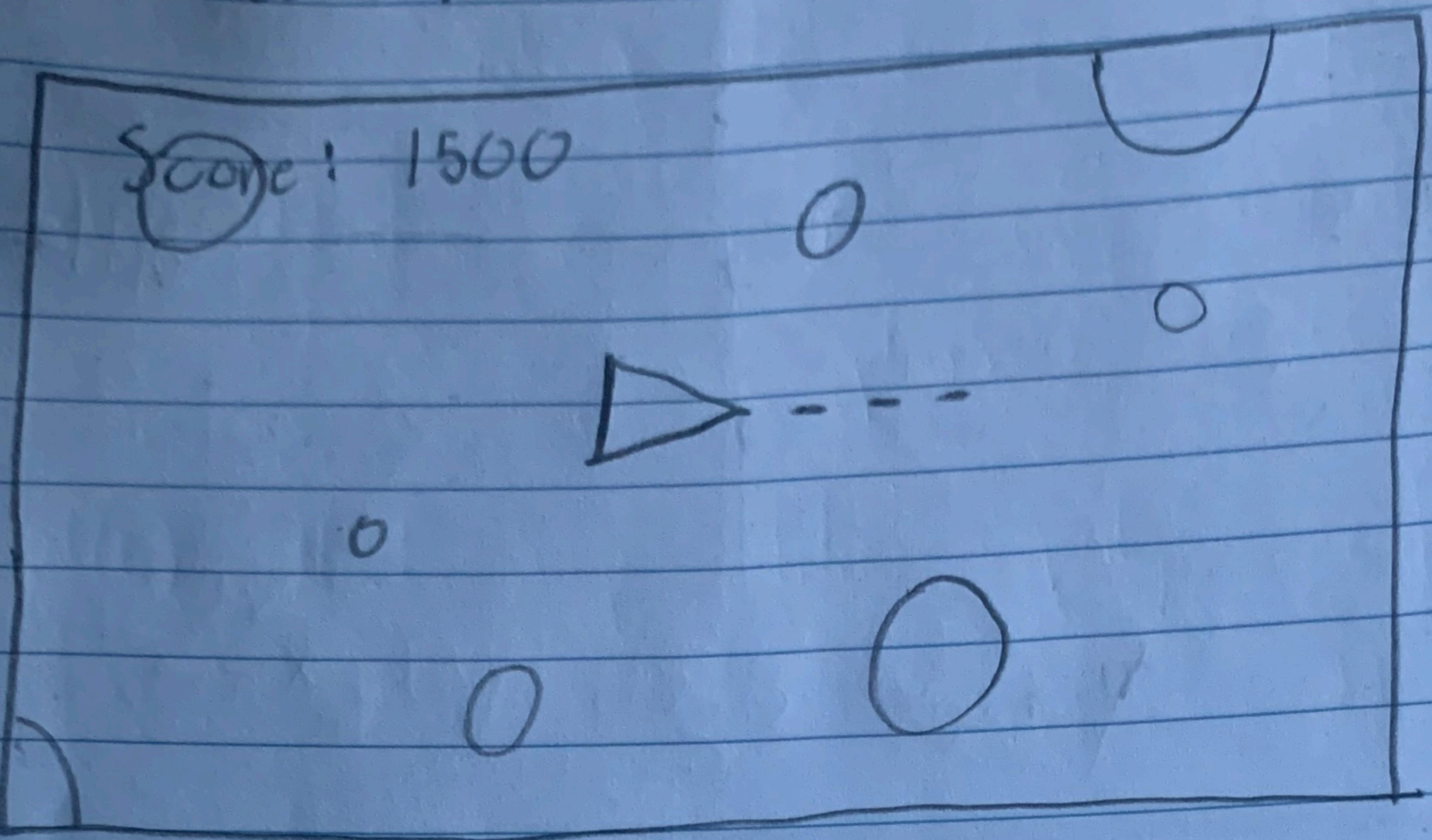


Assignment 5 Process Work

Game Idea: Asteroids Clone



Objects:

- Player/Ship
- Lasers/Bullets
- Asteroids
- Score board

Gameplay:

Shoot the asteroids to gain points, if an asteroid hits you it's game over.

Nodes required:

- Node 2D
- Area 2D
- Rigid Body 2D
- Label
- CollisionShape 2D

Player Process Work

Player Actions:

- Rotate

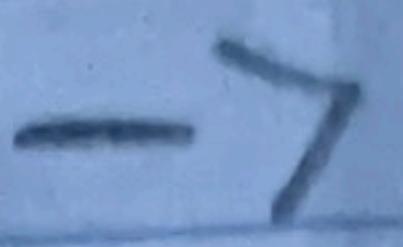


Input:

Left: A

Right: D

- Boost



W

B

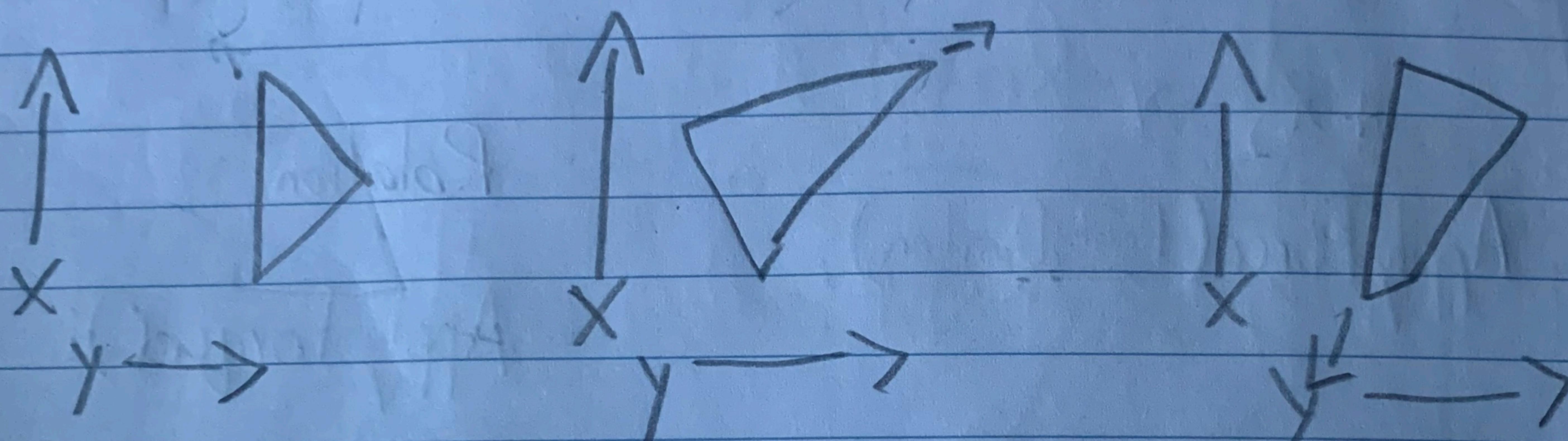
- Shoot



SPACE

or Click

Player Movement:

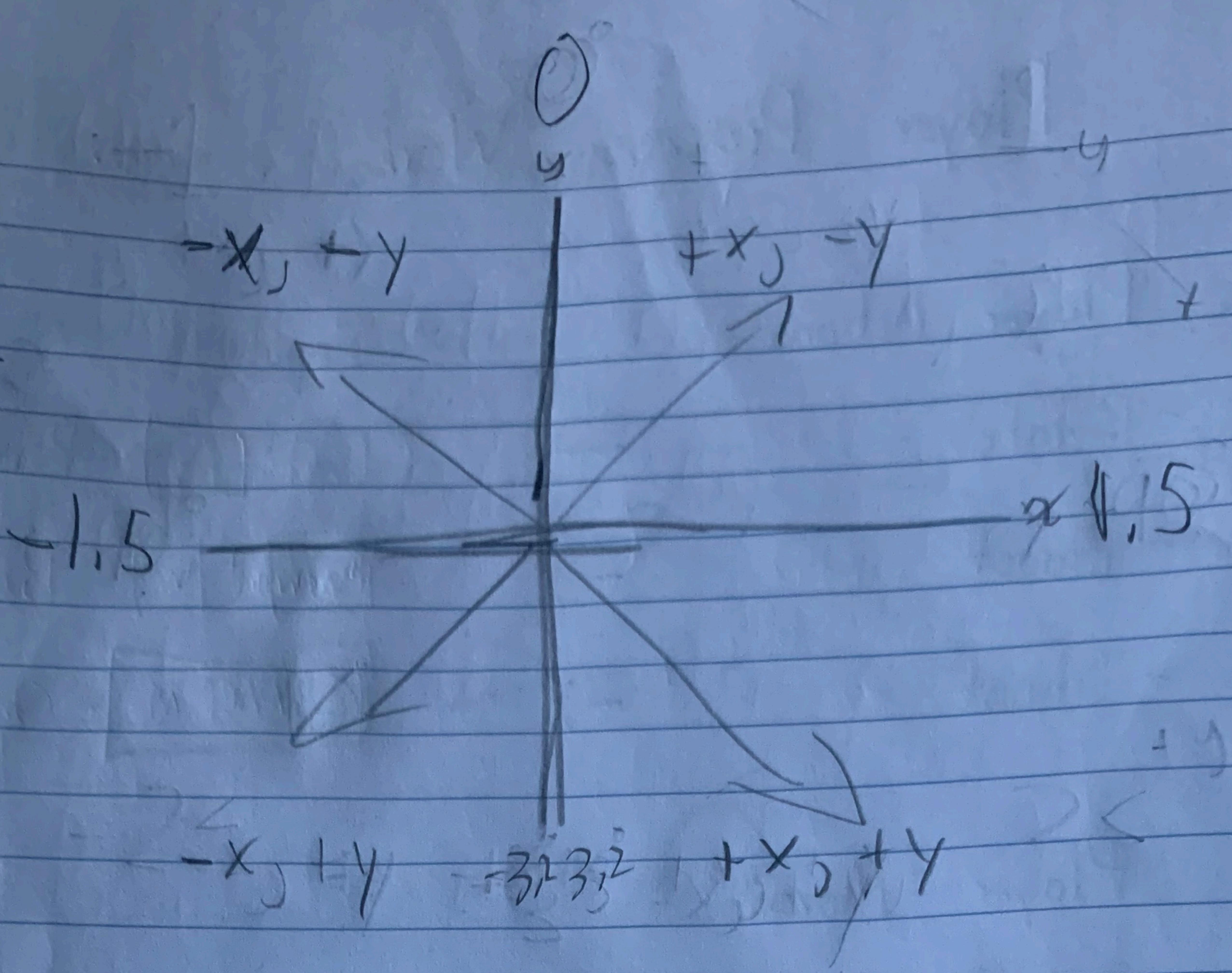


Player movement walk be achieved with the
ApplyForce function

ApplyForce(Vector2 force, Vector2 Position)

When "boost" is pressed, the program should use
ApplyForce on the player.

ApplyForce * Speed.



Rotation:

Apply Force (facingDirection);

facingDirection:

Rotation 0-1.5 \nearrow
= (1_j-1)

Rotation 1.5-3.2 \searrow
= (1_j1)

Rotation -1.5-6 \nwarrow
= (-1_j-1)

Rotation -3.2-1.5 \swarrow
= (-1_j1);

Apply Torque();

Make ApplyTorque positive
for turning Right and
negative for turning Left


When Rotation equals these
key numbers (0, 1.5, 3.2)
make the Value (1, 0)
as an example

Bullet/Laser Process Work

To make the ballts move, a script is required to call ApplyImpulse.

Use a similar tactic to the movement to position the bullet at the point.

Solution was to make a new Area TD at
the tip of the player that spawns the
bullets on its position
(in)



Collision Process Work

Player: Collision Layer: 1, 3, 4

Bullets: Collision Layer: 1, 2, 3, 4

Asteroids: Collision Layer: 3, 5

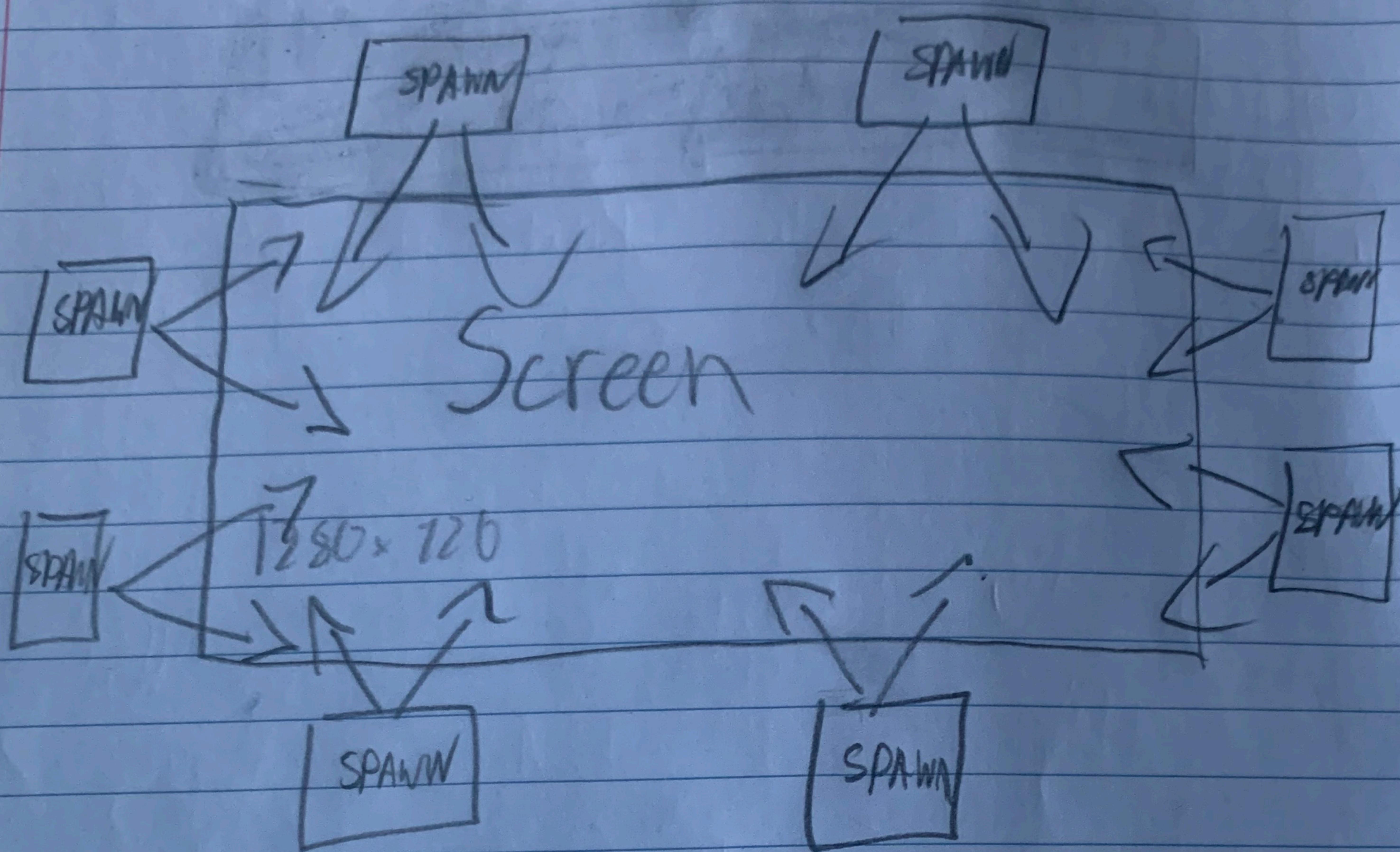
Boards: Collision Layer: 1

Bullet Remove Areas: Collision Layer: 2

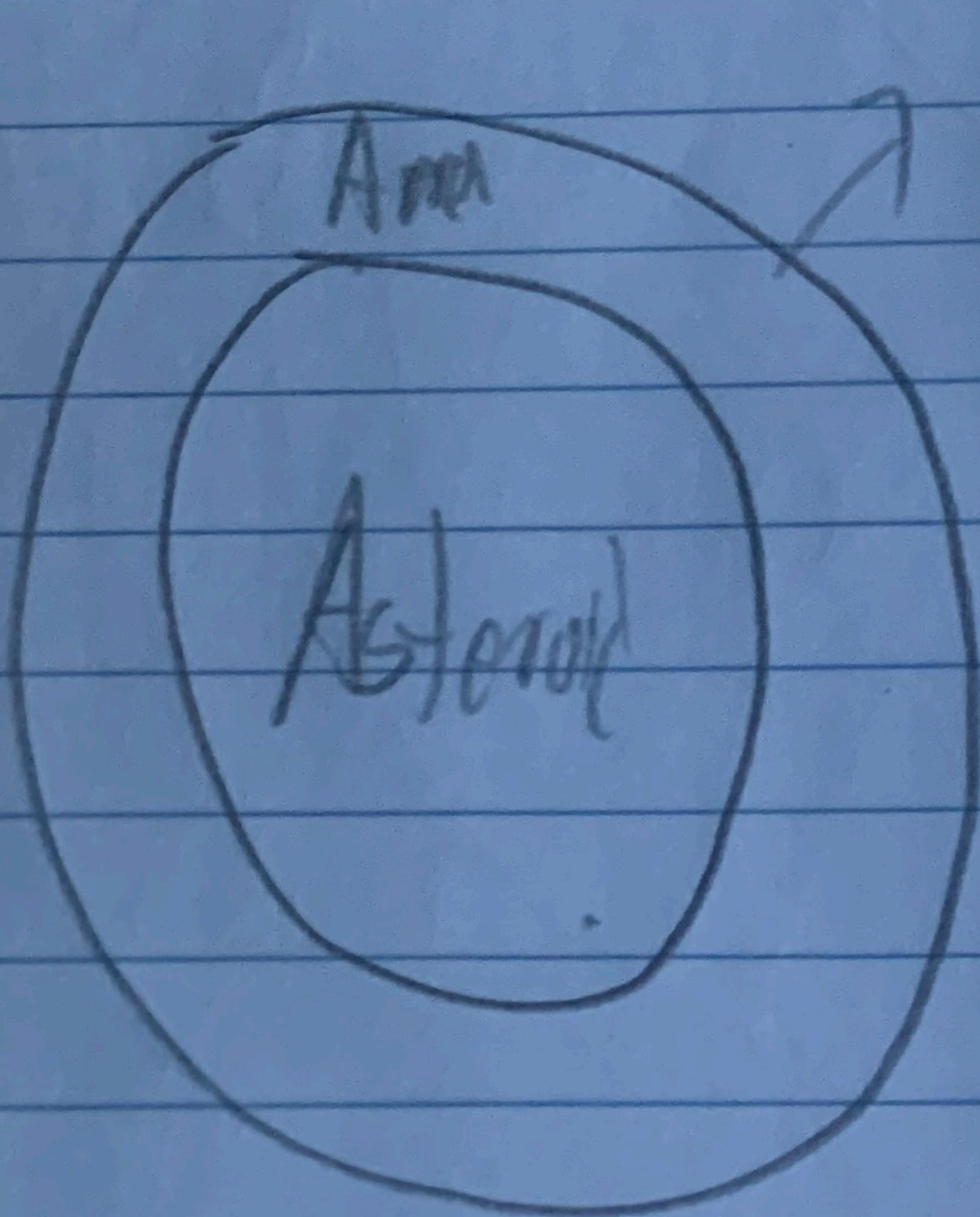
Player Remove Area: 4

Asteroid Remove Area: 5

Asteroids Process Work



Randomly Generate flight patterns for the asteroids



Area that when the player hits
Asteroid it may disappear