Collisions

In this exercise, we will look at collision detection on the canvas.

Exercises

1. Modify the Paddle class so that a circle (rather than a rectangle) is drawn
2. Write a function to detect collisions between the Paddle ball and the “match ball”. Print a visible message to the canvas every time a collision is detected and have the message remain on screen for 1 seconds. The method to detect collisions is detailed in the lecture notes.
3. Have the match ball rebound when it collides with the Paddle ball. The match ball should react in a similar way to when it hits the wall (this is a simplified implementation).
4. Create a score variable for each Paddle. Have the score increment every time the Paddle touches the ball and decrement when it hits the wall behind it. Display the scores for each Paddle
5. Modify the Ball class from the previous lab to include a colour. Choose some appropriate initial value.
6. Add a colour radial gradient to the match and paddle balls

Advanced exercises

1. Introduce multiple match balls (create an array/data structure of ball objects). Pick a key which will introduce a new match ball into the game.