

Collisions

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

Exercises

1. Modify the ball "class" from the previous lab to include a colour. Choose some appropriate initial value.
2. Create a second ball object. Give it appropriate properties, and have it move on the canvas, similar to the first ball
3. Write a function to detect collisions between the two balls. Print a visible message to the canvas every time a collision is detected and have the message remain on screen for 0.5 seconds. The method to detect collisions is detailed in the lecture notes.
4. Replace the two balls with Pacmans.
5. Have the balls/Pacmans change colour after each collision detection

Advanced exercises

1. Add a y acceleration for gravity affect and apply it to one of the balls. Have that ball also lose some kinetic energy on every bounce
2. Experiment with different sphere sizes/masses
3. Implement collision detection for several balls (with scalable code)
4. Experiment with different shaped arenas (hexagons, pentagons etc) and try to get a realistic bounce off the walls