Engineering Computation HW 5

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1 Racketball

After starting the program, a ball is placed in a random location within the right half of the screen. The ball will bounce off the top, bottom and right walls, but will go through the left wall if it does not impact the paddle on the left side of the screen.

To control the paddle, the user presses the up or down arrows. As gameplay continues, the level of the game increases for every 5 impacts between the ball and paddle. With each progressive level, the velocity of the ball increases.

Try to see if you can reach level 11!

1.1 Use OpenGL animation using double-buffering

The game is run using OpenGL with double-buffering.

1.2 Run animation using a for or while loop until user wants to terminate

The game can be quit at any time by pressing the escape key.

1.3 Must be an interactive program

This is an interactive program for all ages!

1.4 Uses color gradation, line stipple, or alpha blending

Color gradation is used for the display level background screen, and line stipple is used to display the current level of the game.

1.5 Uses at least two types of OpenGL primitives

The paddle is made using GL_QUADS, the ball is made using GL_TRIANGLE_FAN, and the level is displayed using GL_LINES.

1.6 Uses at least one of the following

The math library is used to create the ball with sine and cosine functions