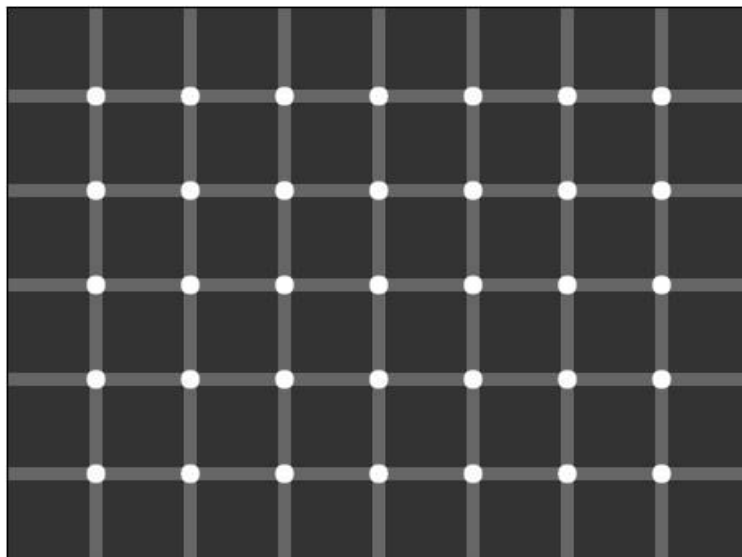


Computer Programming

Canvas #13 – Hermann Grid Illusion

Objective: Use the HTML5 canvas object and Javascript to create the Hermann Grid Illusion. This illusion often asks the question, "Can you count the black dots?"

1. In your *Computer Programming* folder, create a folder titled *first_last_canvas_13*. Copy the *template.html* file and paste it in your *first_last_canvas_13* folder. Rename the *template.html* file to *hermann_grid.html*.
2. Edit the *hermann_grid.html* file,
 - a) Change *CHANGE ME* to *First Last – Canvas 13*
 - b) Change the width of <canvas> to 456 and the height to 340.
 - c) In the draw() method, draw the Hermann Grid Illusion on the canvas.
 - d) Use color code #333333 for the dark gray and color code #666666 for the light grey. The circles are filled with white (#FFFFFF).
 - e) The side of each square is 50. The width of each line is 8. The radius of the circles is calculated using $\text{Math.sqrt}(2) * 4$.
 - f) The circles are centered in the area where the lines cross.
 - g) You must use loops to draw the squares and the circles.
 - h) It is easier if you simply fill the canvas with the light grey color, and then draw the squares and circles. Do not try to draw light grey lines.



3. Zip your *first_last_canvas_13* folder. Turn in your *first_last_canvas_13.zip* file.