Practice Exercises for Drawing

Solve each of the practice exercises below. Each problem includes three CodeSkulptor links: one for a template that you should use as a starting point for your solution, one to our solution to the exercise, and one to a tool that automatically checks your solution.

1. Modify the following program template to print `"It works!"` on the canvas. “It works!” template --- “It works!” solution --- “It works!” (Checker)
2. Given the following program template, add draw commands to the draw handler to draw `"This is easy?"` on the canvas. The precise size and location of the text on the canvas is not important. “This is easy?” template ---“This is easy?” solution --- “This is easy?” (Checker)
3. Create a canvas of size 96×96, and draw the letter `"X"` with font size 48 in the upper left portion of the canvas. Review the syntax for the SimpleGUI method `draw_text` and the layout of canvas coordinates. Draw “X” template --- Draw “X” solution --- Draw “X” (Checker)
4. Write a function `format_time` that takes an integer number of seconds in `range(0, 3600)` and converts it into string that states the number of minutes and seconds. Remember to use the operations `//` and `%`. (Note that this example requires no interactive code.) Format time template --- Format time solution --- Format time (Checker)
5. **Challenge:**Complete the program template below and add two buttons that control the radius of a white ball centered in the middle of the canvas. Clicking the “Increase radius” button should increase the radius of the ball. Clicking the “Decrease radius” button should decrease the radius of the ball, except that the ball radius should always be positive. Ball radius template --- Ball radius solution --- Ball radius (Checker)