Practice Exercises for Mouse and List Methods

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. For each mouse click, print the position of the mouse click to the console. Mouse echo template --- Mouse echo solution --- Mouse echo (Checker)
2. Modify the program template below so that clicking inside any of the three displayed circles prints the color of the clicked circle to the console. Hint: Use the supplied function `dist` to compute the distance between the center of each circle and the mouse click. Circle click template --- Circle click solution --- Circle click (Checker)
3. Write a function `day_to_number(day)` that takes the supplied global list `day_list` and returns the position of the given day in that list. You can either use the Docs to locate the appropriate list method or write a `for`loop to implement this function. Day lookup template --- Day lookup solution --- Day lookup (Checker)
4. Write a function `string_list_join(string_list)` that takes a list of strings as input and returns a single string that is the concatenation of the lists in the string. We recommend using a `for` loop to implement this function. String list join template --- String list join solution --- String list join (Checker)
5. Complete the given program template to produce a program that fills the canvas with a 10x10 grid of touching balls of the given size. You should use two `for` loops, one nested inside the other, placed in the draw handler.Ball grid template --- Ball grid solution --- Ball grid (Checker)
6. **Challenge:** Write a program that draws a polyline (an open polygon) based on a sequence of mouse clicks. The first click should create a point. Subsequent clicks should add a new segment to the polyline. You should include a “Clear” button that deletes the polyline and restarts the drawing process. Polyline template --- Polyline solution--- Polyline (Checker)