Euclidean Distance

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Writing a program to calculate the Euclidean Distance between two points can be done in Python under 10 lines. To explain the program I have written to solve for Euclidean Distance, I will go (basically) line by line, and explain my logic related to that line. Lines 1 and 2 are dedicated to defining the points which we will calculate the distance between. Each point is stored as an array, with the x and y values being tied to the 0 and 1 indices of the array. Lines 4 to 8 (skip 3) describe the function, ‘distance’, which contains all the logic to calculate Euclidean Distance between two points, the function’s inputs, p1 and p2. Line 4 defines the function and its inputs. To begin with the logic of the function, lines 5 and 6 define the variables dx and dy equal to the horizontal and vertical distances between p1 and p2, respectively. Line 7 sets the variable ‘dist’ equal to the distance between p1 and p2 using the Pythagorean Theorem with dx and dy as the inputs. Line 8 returns the variable ‘dist’ and ends the function. To end the program, line 10 (skip 9) calls and prints the ‘distance’ function with the two points provided on lines 1 and 2 as inputs.