
Racket Programming Assignment #1: First Interactions

What's It All About?

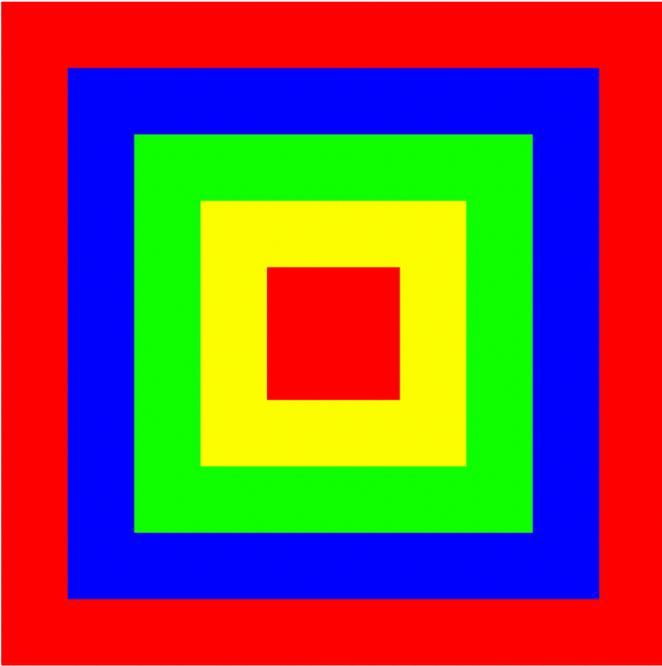
1. This assignment presumes that you have Racket and DrRacket at your disposal, either because you installed them on your machine or because you are working on the CS department machines.
2. The first three parts of this assignment involve mimicking interactions presented in the first Racket lesson.
3. The last two parts of this assignment involve solving problems by means of Racket interactions.
4. No functions are defined in this assignment. Function definition will come into play in subsequent assignments.

Tasks

1. Working within the DrRacket PDE, do the following:
 - (a) Mimic the interactions session that I provided by way of introduction to numeric computations (the one in which, among other things, I computed 9^{50}).
 - (b) Mimic the interactions session that I provided to solve the area computation problem involving the blue tile with a centered red dot.
 - (c) Mimic the interactions session that I provided to paint the blue and red tile of the area computation problem.
 - (d) Engage in an interactions session to paint the concentric squares image that is presented below.
 - (e) Engage in an interactions session to compute the **percent** of the concentric squares image that is red.
2. Craft one nicely structured document that contains representations of each of the five tasks that you were just asked to do. Moreover, be sure to title the document, and place a “learning abstract” just after the title. **Save your document in pdf format.** *A model solution document, with bits redacted, accompanies this assignment. Please note that your solution document need only be structurally similar to the model. The infrastructure components of your document certainly need not precisely replicate those of the model.*
3. Post your **pdf** document to your web work site. Please note that no other format is acceptable. Documents in any format other than **pdf** will receive no credit.

The Concentric Squares Image

The following (next page) concentric squares image was created by overlaying one square on top of the next, on top of the next, and so on, where the smallest square measures 88.88 units on a side, and the remaining squares have sides that measure twice, three times, four times, and five times the side length of the smallest square. For the record (sometimes I have a colorblind student), the conceptual squares that figure in the composition are colored, from smallest to largest, red, yellow, green, blue, red.



Due Date

Wednesday, February 2, 2021.