# 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 becuase you installed them on your machine or because you are working on the CS deparment 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, assuming that the boundary of the image is a circle of radius 100.

   (d) Engage in an interactions session to paint the blue and red concentric circles image that is presented below.

   (e) Engage in an interactions session to compute the **area** of the concentric circles image that is blue.

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. For now, just hang on to your solution document. Place it in a secure spot in your local file system. As part of your Web Worksite assignment, you will arrange to reference your soluton document from your web worksite.
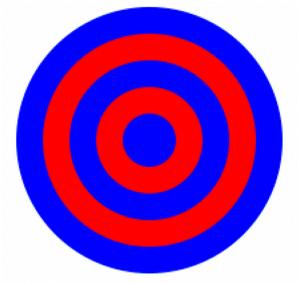
## The Concentric Circles Image

The following (next page) concentric circles image was created by overlaying a blue disk of radius 20 on top of a red disk of radius 40 on top of a blue disk of radius 60 on top of a red disk of radius 80 on top of a blue disk of radius 100.

## Due Date

Friday, September 2, 2022