

## Some More DrRacket Tidbits

### To save an image as a .png file

```
(save-image desired-image-expression "desired-file-name-as-a-string.png")
```

- Helpful Hint: if you save your Definitions window contents before doing this, then your image will be saved in the same folder that you saved your Definitions window to...

### Two functions that produce scenes:

```
; signature: empty-scene: number number -> scene
; purpose: expects the desired width and height of a scene in
;   pixels, and produces a scene with that width and height
(empty-scene 400 200)

; signature: place-image: image number number scene -> scene
; purpose: expects an image, the desired x and y coordinates, and a
;   scene, and produces a new scene with the image centered at that
;   point in the scene (trimmed to the size of that scene if nec)
(place-image (circle 30 "solid" "blue")
             250 150
             (empty-scene 300 200))
```

### Basic Racket function syntax

```
(define (desired-function-name desired-parameter-name1 desired-parameter-name2 ...)
  desired-expression
)
```

### The modulo function

```
; signature: modulo: number number -> number
; purpose: expects two numbers, and produces the integer remainder
;   that results from dividing the first number by the second
;   number
(modulo 27 10)  --> should produce 7
```

### big-bang basics

Read more about big-bang in the 2htdp/universe teachpack documentation, but most simply:

```
(big-bang initial-numeric-value
  (on-tick name-of-number-to-number-function)
  (on-draw name-of-number-to-scene-function)
  ; include to create an animated gif of your animation
  (record? true)
)
```