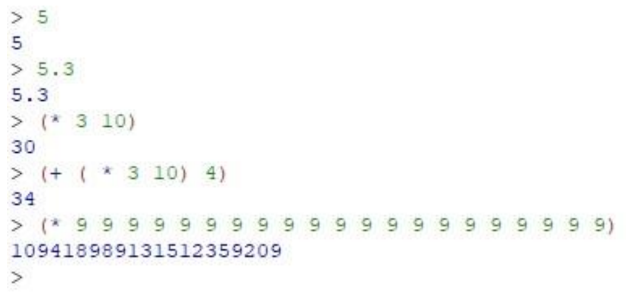
First Racket Assignment

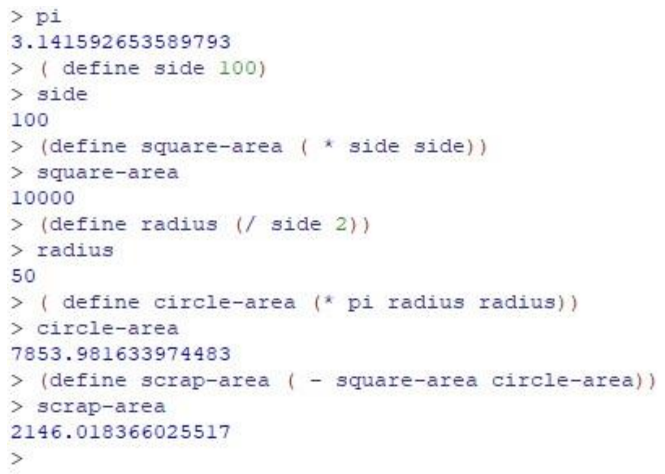
Learning Abstract: The first 3 parts of the is assignment consisted of following the given example. During this part of the assignment, I learned how to do so math and the draw shapes which would help with the last two pars. Those parts consisted of drawing a target and find the percentage of red the target contained.

Part One:



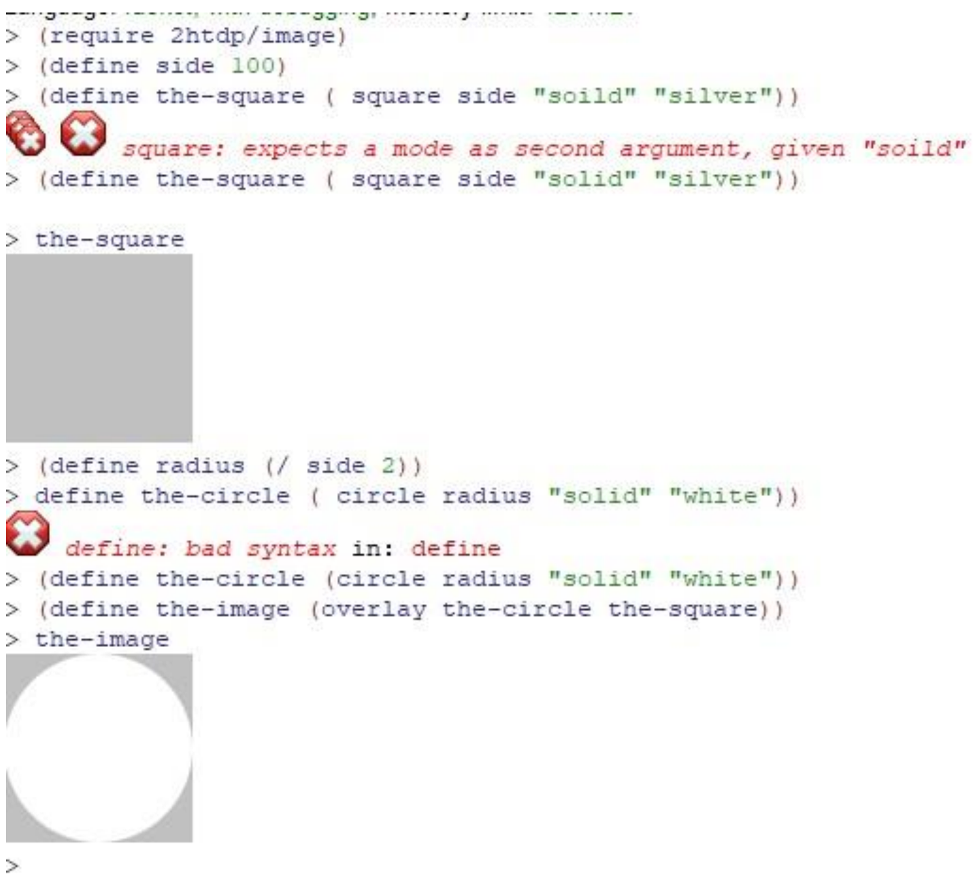
```
> 5
5
> 5.3
5.3
> (* 3 10)
30
> (+ ( * 3 10) 4)
34
> (* 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9)
109418989131512359209
>
```

Part Two:



```
> pi
3.141592653589793
> ( define side 100)
> side
100
> (define square-area ( * side side))
> square-area
10000
> (define radius (/ side 2))
> radius
50
> ( define circle-area (* pi radius radius))
> circle-area
7853.981633974483
> (define scrap-area ( - square-area circle-area))
> scrap-area
2146.018366025517
>
```

Part Three:



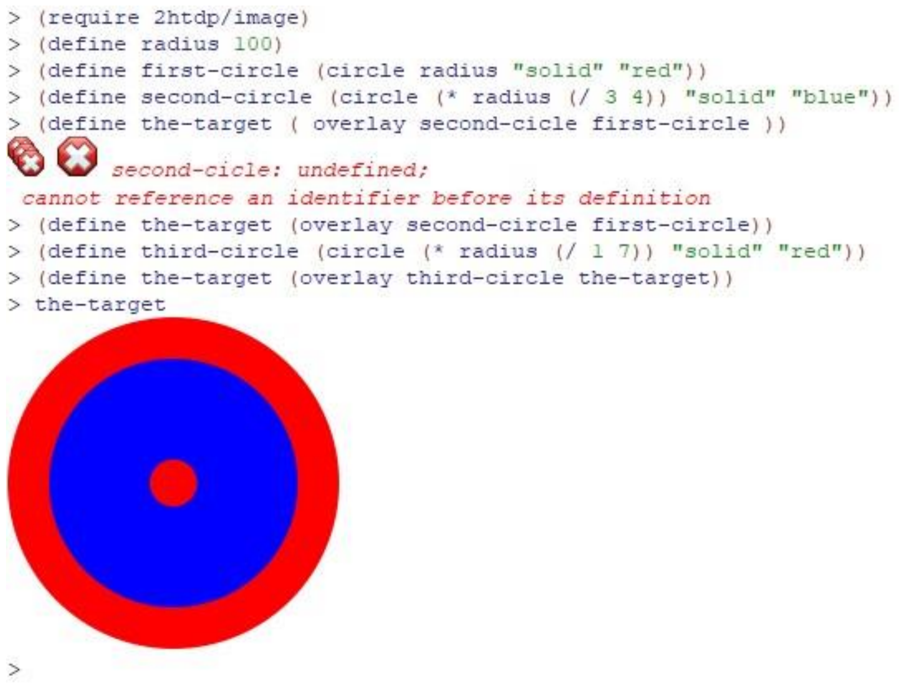
```
> (require 2htdp/image)
> (define side 100)
> (define the-square ( square side "soild" "silver"))
square: expects a mode as second argument, given "soild"
> (define the-square ( square side "solid" "silver"))

> the-square
```

```
> (define radius (/ side 2))
> define the-circle ( circle radius "solid" "white"))
define: bad syntax in: define
> (define the-circle (circle radius "solid" "white"))
> (define the-image (overlay the-circle the-square))
> the-image
```

```
>
```

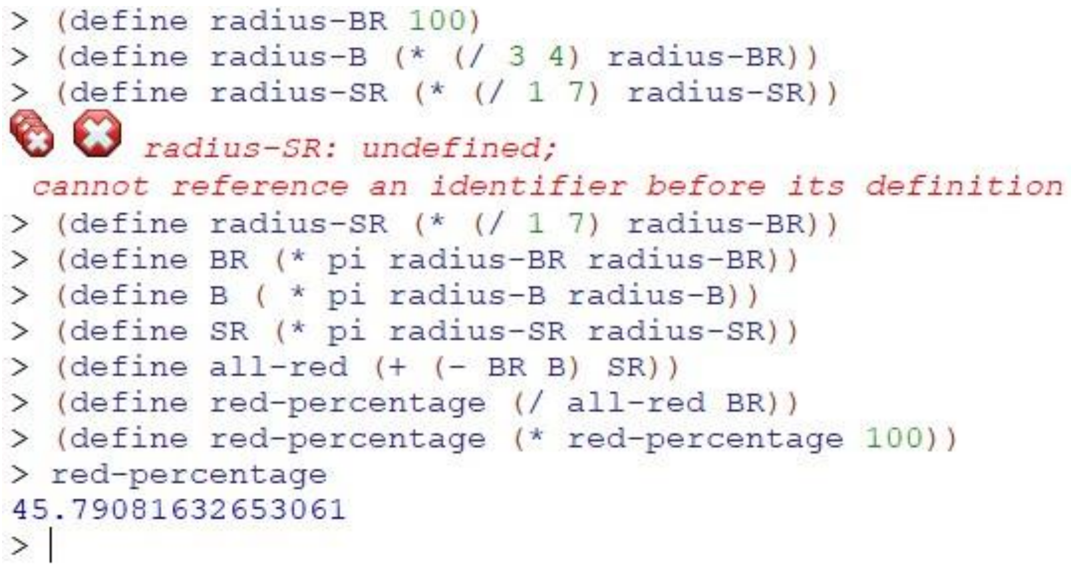
Part Four:



```
> (require 2htdp/image)
> (define radius 100)
> (define first-circle (circle radius "solid" "red"))
> (define second-circle (circle (* radius (/ 3 4)) "solid" "blue"))
> (define the-target ( overlay second-cicle first-circle ))
second-cicle: undefined;
 cannot reference an identifier before its definition
> (define the-target (overlay second-circle first-circle))
> (define third-circle (circle (* radius (/ 1 7)) "solid" "red"))
> (define the-target (overlay third-circle the-target))
> the-target
```

```
>
```

Part Five:



```
> (define radius-BR 100)
> (define radius-B (* (/ 3 4) radius-BR))
> (define radius-SR (* (/ 1 7) radius-SR))
  radius-SR: undefined;
 cannot reference an identifier before its definition
> (define radius-SR (* (/ 1 7) radius-BR))
> (define BR (* pi radius-BR radius-BR))
> (define B ( * pi radius-B radius-B))
> (define SR (* pi radius-SR radius-SR))
> (define all-red (+ (- BR B) SR))
> (define red-percentage (/ all-red BR))
> (define red-percentage (* red-percentage 100))
> red-percentage
45.79081632653061
> |
```