

```
# write function greetings:
# print "Welcome, name!" for the given name.
# But print "Intruder detected!" for Joker
```

Example:

```
> greetings("Batman")
Welcome, Batman!
```

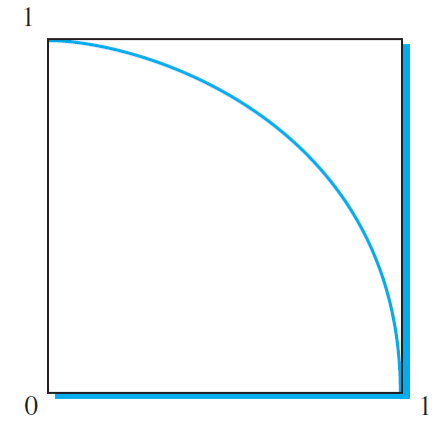
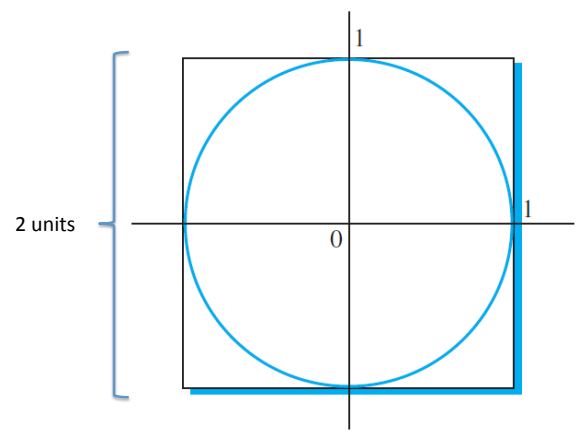
```
> greetings("Louis")
Welcome, Louis
```

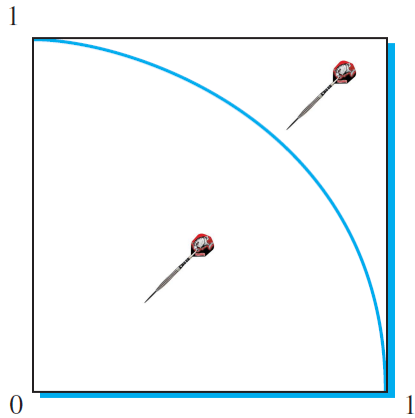
```
> greetings("Joker")
Intruder detected!
```



Monte Carlo Simulation

- Use random numbers to compute an approximation of pi
- Simulation of a special game of darts
- Randomly place darts on the board
- pi can be computed by keeping track of the number of darts that land on the board

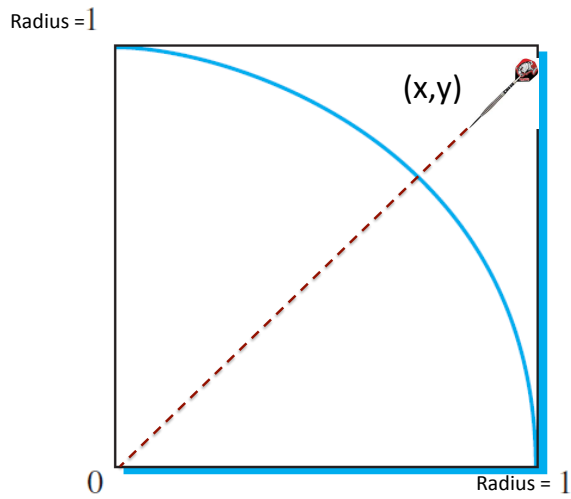




Play area



Probability of the dart
hit inside the quarter circle = $\frac{\pi}{4}$



$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$