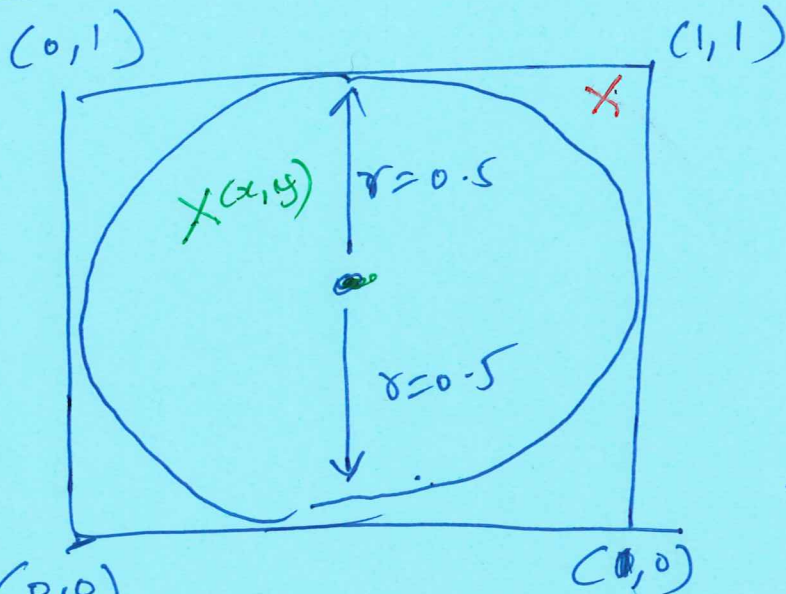


Input: n : # iterations
 p : # threads

π estimator()

Output: $\pi = ?$



$$\frac{\pi r^2}{(2r)^2} = \frac{\pi \frac{1}{4}}{1}$$

$$\Rightarrow \frac{\pi r^2}{4r^2} = \frac{\pi}{4}$$

count = 0, (0,0)

for $(i = 1 \text{ to } n)$ {

1. Throw a dart (random) s.t. dart \in square
2. If dart inside circle count++

$$\pi = 4 \times \frac{K}{?}$$

$$K = \frac{\text{count}}{n}$$

$$\pi = 4 \times K ;$$

