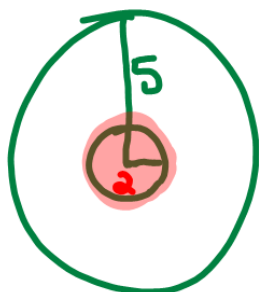


11.7 Geometric Probability

Jackson is sitting in a dunk tank.

To sink him, must target 2" in radius

The target is 5" for radius. What is probability of hitting bullseye.



* need to use (inside) area

* probability is a fraction

* $A = \pi r^2$

$$\frac{\text{good}}{\text{total}} = \frac{\text{bullseye}}{\text{total}}$$

$$\text{Area of bullseye} = \pi 2^2 \approx 12.5 \text{ in}^2$$

$$\text{Area of total target} = \pi 5^2 \approx 78.5 \text{ in}^2$$

$$\text{Prob of bullseye} = \frac{12.5}{78.5} = 0.16 \text{ or } 16\%$$

You walk from DLCCC to Central Market.

You lose your \$ between bank & Burger Time.

What's the probability you are right?



total distance = 7
B & BT dist = 4

$$\text{probability} = \frac{\text{favorable}}{\text{total}}$$

$$= \frac{4}{7}$$

$$= 0.57 \text{ or } 57\%$$