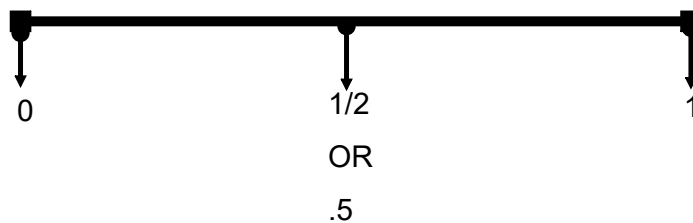


GEOMETRIC PROBABILITY

FAVORABLE AREA = CHANCES YOU'LL
TOTAL AREA HIT IT

FAVORABLE VOLUME = CHANCES YOU'LL
TOTAL VOLUME HIT IT

HIGH or LOW PROBABILITY?



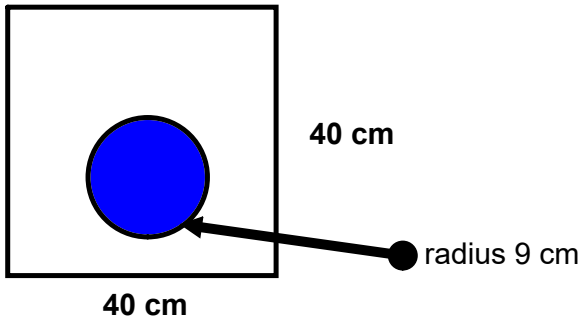
0= impossible

1= it will certainly happen

1/2= it may or may not happen

close to 0? low chances

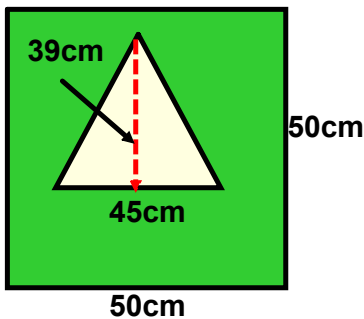
close to 1 ? high chances



Probability of hitting the blue dot?

$\frac{\text{blue dot area}}{\text{total area}} = \% \text{ chance}$

$$\frac{\pi \times 9^2}{40 \times 40} = \frac{254.46 \text{ cm}^2}{1600 \text{ cm}^2} \div = 0.159 = 15.9\% \text{ chances}$$



Probability of hitting the green area?

$\frac{\text{area around the triangle}}{\text{total area}} = \frac{\square - \triangle}{\square}$

$$\frac{(50 \times 50) - \frac{45 \times 39}{2}}{2500} = .65 = 65\% \text{ chances}$$