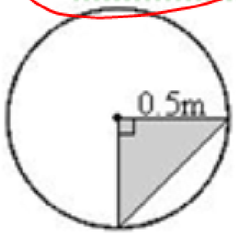
26. For a carnival game, a contestant must throw a beanbag onto a disk. If the beanbag hits the triangular section marked on the disk, the contestant wins a prize. The disk has a radius of 0.50 meters, as shown below. What is the probability of winning the prize, if skill level is not a factor? Round your answer to the nearest hundredth, if necessary.

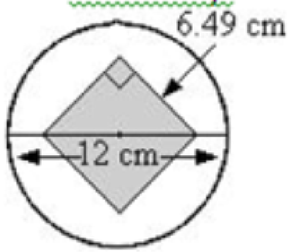


$A_{circle} = \pi(.5)^2 = .25\pi$

$A_{tri} = \frac{1}{2}(.5)(.5) = .125$

$\frac{.125}{(.25\pi)} =$

27. A researcher was testing a new insect product. To do this, she needed a mosquito to land in a square area that was 6.49 cm on each side within a circular lab dish that had a diameter of 12 cm. What is the probability that the mosquito landed in the square section, if the entire inside of the dish was uniform? Round your answer to the nearest hundredth, if necessary.



$A_{sq.} = 6.49^2 = 42.1201$

$A_{circle} = \pi(6)^2 = 36\pi$

$\frac{42.1201}{(36\pi)} =$

19. Michael rolled a six-sided number cube 1,000 times. The table below represents his rolls. Which of the following explains the difference between the experimental probability and the theoretical probability of rolling a six?

Number on Cube	Number of Times Rolled
1	145
2	137
3	186
4	201
5	136
6	195

A. The theoretical probability of rolling a six was higher than the experimental probability of rolling a six.

B. The experimental probability of rolling a six was the same as the theoretical probability of rolling a six.

C. There is not enough information to make a comparison.

D. The experimental probability of rolling a six was higher than the theoretical probability of rolling a six.

exp

$\frac{195}{1000}$

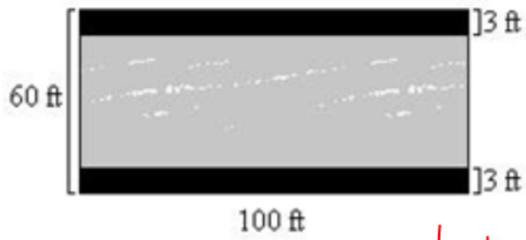
$.195$

theory

$\frac{1}{6}$

$.1\overline{6}$

23. A group of people are parachuting off of a bridge today. The river below has a bank on each side that is 3 feet wide. The entire area is 60 feet wide and 100 feet long. What is the probability that they will land in the water and NOT on the the river bank? Round your answer to the nearest hundredth, if necessary.



$A_{big} = 60(100) = 6000$

$A_{sm.} = 3(100) = 300 \times 2 = 600$

on bank $\frac{600}{6000} = .10$

$1 - .10 = .90$

0. The probability of buying a new battery that does NOT work is 0.002. Of the 6,300 batteries sold this month, how many can be expected to NOT work? Round your answer to the nearest whole number.

$6300 \cdot .002 = 12.6$

13

0–9

$\underline{10} \cdot \underline{9} \cdot \underline{8} \cdot \underline{7} \cdot \underline{6} \cdot \underline{5} \cdot \underline{4}$