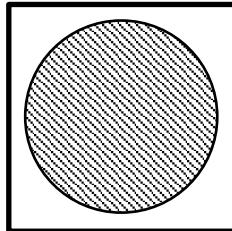


## **Answer on Question #71720 – Math – Statistics and Probability**

### **Question**

A dart hits the square dartboard shown below at a random point. Find the probability that the dart lands in the shaded circular region. Each side of dartboard is 12 in, and the radius of the shaded region is 5 in.



### **Solution**

The probability of landing in the shaded circular region is given by

$$P = S1/S2,$$

where  $S1$  is the area of the shaded region,  $S2$  is the area of the square dartboard. Then

$$P = \pi * 5^2 / 12^2 = 25 * \pi / 144 = 0.17361 \times \pi = 0.17361 \times 3.14159 = 0.5454.$$

### **Answer:**

The probability that the dart lands in the shaded circular region is 0.5454.