

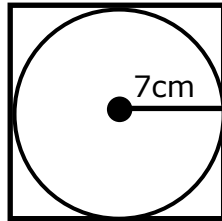
Name _____

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Creating Probability Models - Step-by-Step Lesson

Lesson 1 Probability Problem:

If Peter chooses a point in the square, what is the probability that it is not in the circle?



Explanation:

Squares have equal sides.

The length of one side must be 14 cm (7 cm x 2).

Area of a circle = length x width

The area of the square would be 14 cm x 14 cm or 196 cm².

Area of a circle = πr^2

The area of the circle would be ($\pi 7^2$) or 154 cm².

Since the circle takes up most of the square let's calculate what percentage of the area is not in the circle.

The probability that a point is not in the circle would be:

$$(196 - 154) = 42$$

$$42 / 196 \text{ or } 21.42\%$$

