

Indicators

Objective:

3.01 Represent problem situations with geometric models.

Vocabulary and Resources		
geometric probability area	volume cylinder	cube

A. Carlos bought a pizza with an area of approximately 201 in^2 . He paid \$8.99 for the pizza. Tameka bought two pizzas, each with an area of approximately 133 in^2 . She paid a total of \$10.99 for the two pizzas. Pizzas are usually sold by the measurement of the diameters. What is the diameter of each pizza (to the nearest half-inch)? Which pizza is the better buy based on the number of square inches per pizza? Show the model you used to find the solution.

B. At a carnival, the dart game uses a square game board with a side length of 8 feet. In order to win the game, the dart you throw must land in one of four non-overlapping circles located on the board. Each circle has a diameter of 18 inches. If a dart lands on the board, what is the probability of it landing in one of the four circles? Show the model you used to find the probability.

C. A 10 foot by 14 foot wall contains two window openings that each measure 3 feet by 5 feet. Make a scale drawing of the wall and windows and find the percent of the wall that will need to be painted.

D. Six students in a study group decide to exchange telephone numbers so they can contact each other between study sessions. How many exchanges can occur? Use a model to find the number of exchanges.