

MODULE
9**Applications of Geometry****Challenge**

If you know the area of a circle, you can find its perimeter, and if you know the perimeter of a circle, you can find its area. This is because the formulas for both area and perimeter use the radius or diameter of the circle and π .

Solve each problem. Show your work.

1. Pilar has a circular garden plot with an area of 125 square feet. To fence this area, how many feet of fencing does she need?

2. Rocco has 385 linear feet of plastic tubing. How many square feet can he enclose in a circular plot?

3. Marquetta's garden includes two circular plots each with a circumference of 35 feet and a rectangular plot with dimensions of 35 by 20 feet. What is the total area of her garden?

4. Amir has 70 meters of string. He wants to use it to lay out a patio design that includes a square area of 25 square meters and uses the rest of the string to enclose a circular area. What are the dimensions and areas of the parts of his patio?
