

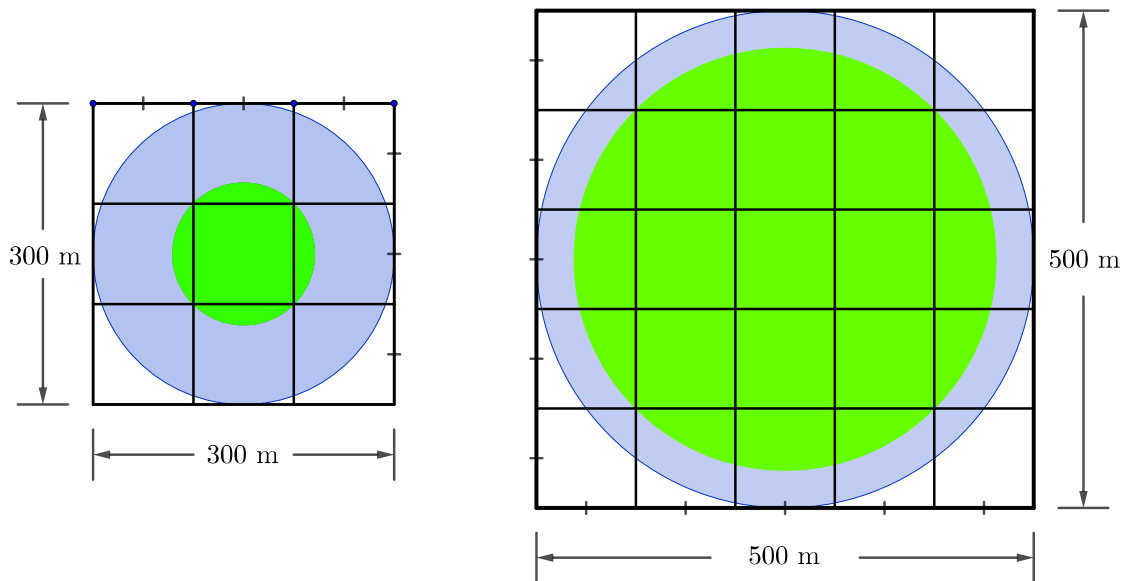


Problem of the Week

Problem D

Watery Ways

Two parks in Yourtown have very unique but similar designs, which are illustrated in the following diagrams.



The smaller park can be completely enclosed by a square that is 300 m by 300 m. The larger park can be completely enclosed by a square that is 500 m by 500 m.

On each drawing, there are horizontal and vertical lines, each spaced 100 m apart. These lines create identical 100 m by 100 m squares, nine squares on the drawing of the smaller park and twenty-five squares on the drawing of the larger park.

The drawing for each park also shows two concentric circles. The circumference of the outer circle touches each of the four sides of the square enclosing the park. The circumference of the inner circle passes through the four vertices of the largest square created by the gridlines that are totally inside the park. (In the smaller park, this largest square is the single square in the centre of the grid. In the larger park, this largest square is formed by the nine squares in the centre of the grid.)

The ring created between the outer circle and inner circle in each park is completely filled with water to a uniform depth of 0.5 m.

Which of the two waterways contains more water?

