Problem of the Week Solution One

The circle below has radius 5. Figure *ABCD* is a rectangle. Find the length of segment *AD*.



SOLUTION: Segment AD has length 5.



The trick is to draw in the rectangle's other diagonal, BC, as shown to the left.

Segment BC is plainly a radius of the circle, and therefore has length 5. Since the diagonals of a rectangle have the same length, it follows that AD has length 5 as well.