



## Problem of the Week

### Problem D

### That Triangle

In the diagram below,  $ABCD$  is a rectangle. Point  $E$  is outside the rectangle so that  $\triangle AED$  is an isosceles right-angled triangle with hypotenuse  $AD$ . Point  $F$  is the midpoint of  $AD$ , and  $EF$  is perpendicular to  $AD$ .

If  $BC = 4$  and  $AB = 3$ , determine the area of  $\triangle EBD$ .

