Problem of the Week
Problem C
No Longer a Rectangle

In the following slightly irregular shape,

- $AB = 50$ cm, $CD = 15$ cm, $EF = 30$ cm;
- the area of the shaded triangle, $\triangle DEF$, is $210$ cm$^2$; and
- the area of the entire figure, $ABCDE$, is $1000$ cm$^2$.

Determine the length of $AE$. 

**Strands** Measurement, Patterning and Algebra