



## Problem of the Week

### Problem E

### Overlapping, Right?

In the diagram,  $AB$  and  $BC$  are straight line segments meeting at  $B$  so that  $\angle ABC = 90^\circ$ .  $D$  lies on  $AB$ ,  $F$  lies on  $BC$  and  $E$  is the intersection of  $AF$  and  $DC$ . Also,  $AD = 1$ ,  $DB = 2$ ,  $AE = 3$ ,  $BF = 4$  and  $EF = 2$ .

Determine the length of  $CF$ .

