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 $CF$. 