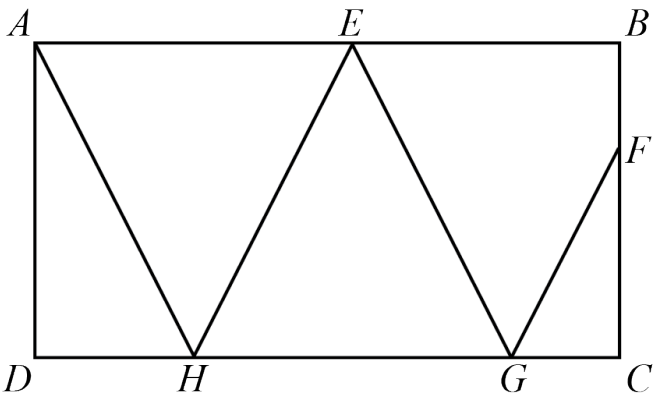
Problem of the Week

Problem E

Zigzagged

A fence is to be constructed in a zigzag pattern inside a rectangular field, as shown.



The fence will be constructed so that $\angle AHD = \angle EHG$, $\angle AEH = \angle BEG$, $\angle EGH = \angle FGC$, and $CF = 12$ m. If $AB = 36$ m and $AD = 20$ m, determine the total length of fencing required. That is, determine the value of $AH + EH + EG + FG$.