



Problem of the Week

Problem C

Tangled Triangles

Points $A(7, 12)$, $B(3, 2)$, $C(11, 2)$, $D(6, 2)$ and $E(10, 2)$ are plotted on the Cartesian plane. The point $F(8, k)$ lies inside $\triangle ABC$ so that the area inside of $\triangle ABC$ but outside of $\triangle DEF$ is equal to 32 units^2 .

Determine the value of k , the y -coordinate of F .

