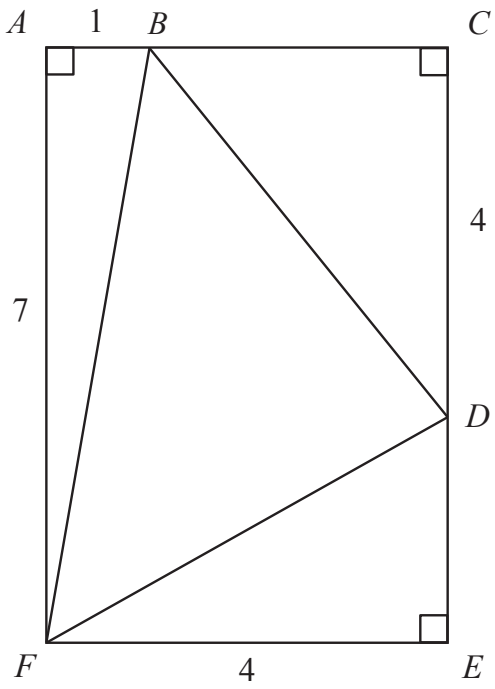
Problem of the Week

Problem D

Multiple Solutions

$ACEF$ is a rectangle with $FE = 4$ and $FA = 7$. $\triangle BDF$ is inscribed in rectangle $ACEF$ with B on AC such that $AB = 1$ and D on CE such that $CD = 4$.

Determine the value of $\angle ABF + \angle CBD$.



There are many ways to solve this problem. Try to find as many different solutions as possible.