



Problem of the Week

Problem D

Find the Largest Area

Rectangle $ACEG$ has B on AC and F on EG such that BF is parallel to CE . Also, D is on CE and H is on AG such that HD is parallel to AC , and BF intersects HD at J . The area of rectangle $ABJH$ is 6 cm^2 and the area of rectangle $JDEF$ is 15 cm^2 .

If the dimensions of rectangles $ABJH$ and $JDEF$, in centimetres, are integers, then determine the largest possible area of rectangle $ACEG$. Note that the diagram is just an illustration and is not intended to be to scale.

