MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 2 - NOVEMBER 2013
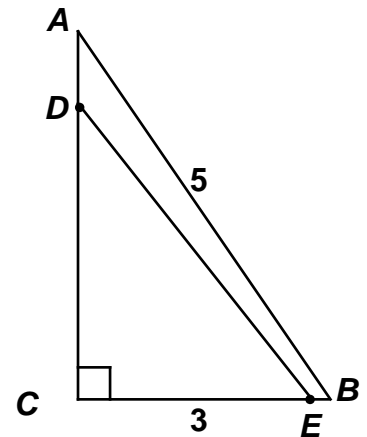## ROUND 3 PLANE GEOMETRY: AREAS OF RECTILINEAR FIGURES

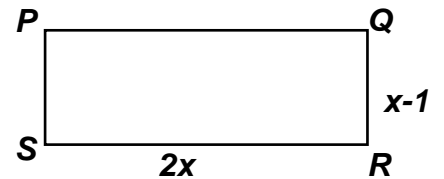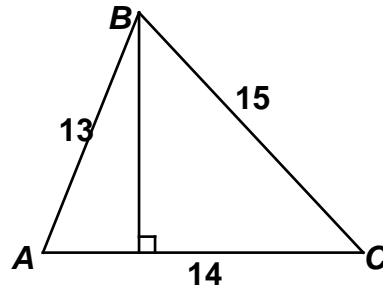### ANSWERS

A) _____ units^2

B) _____

C) _____ units^2

A) In the diagram at the right, $AB = 5$, $BC = 3$, $DC = 7 \cdot AD$ and
    $CE = 11 \cdot BE$. Compute the area of $\triangle DEC$.

B) Triangle *ABC* and rectangle *PQRS* have the same area.
    Compute *x*.

C) Trapezoid *ABCD* is comprised of a square and two right triangles
    with sides as indicated in the diagram at the right. If the perimeter of trapezoid *ABCD* is 152
    units, compute the area of square *ABFE*.