



Problem of the Week

Problem E

Positioned Differently

Often we draw parallelograms so that two of the sides are either horizontal or vertical.

The parallelogram, $ABCD$, is positioned differently. A lies on the positive y -axis, D is on the positive x -axis, and B and C lie in the first quadrant. Three of its vertices, A , B , and D are located at $(0, 30)$, $(k, 50)$ and $(40, 0)$, respectively. The area of $ABCD$ is 1340 units². If $k > 0$, determine the coordinates of B and C .

