

Problem of the Week-2: Move a Point

Consider the triangle $\triangle ABC$ where $A = (0, 0)$, $B = (0, 2)$ and $C = (1, 501)$. What is the shortest distance that C can be moved so that $\triangle ABC$ becomes isosceles triangle with the same area as before the move? Find the new position of C and the distance it needs to move.

As always, show your work, fully explain and justify your answer.

Posting Date 1/25/14. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 2/7/14.