

## High School Olympiads

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## Triangle, side midpoint, orthogonal projections and angles


[geometry](#) [angle bisector](#) [geometry proposed](#)
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angle bisector of  $\angle BAC$ , right?**treegoner**

637 posts

Feb 7, 2005, 9:26 am

[PM](#) #4

I think so Grobber 😊

BTW, the language in the website is German ?

**darij grinberg**

6393 posts

Feb 7, 2005, 4:40 pm

[PM](#) #5

“ grobber wrote:

It's from a Balkan Olympiad, I think. Both those bisectors are parallel to the angle bisector of  $\angle BAC$ , right?

Yes to both of your questions 😊 . So, yes for the assertion that both angle bisectors are parallel to the angle bisector of the angle BAC (in fact, this is pretty clear for the angle PMN), and yes, the language is German.

Unfortunately, you are also right about Balkan... Now I see the problem was solved on <http://www.kalva.demon.co.uk/balkan/bsoln/bsol002.html> , and yes, the solution is the same as mine (is there another way? probably no...).

darij

**arniszt**

Sep 7, 2008, 9:11 pm

[PM](#) #6

I write here my solution:

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