

Solutions USAJMO 2011

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This document contains solutions to the USAJMO 2011 problems, written by me during my preparation for the International Mathematical Olympiad.

The content reflects my own understanding and problem-solving process. Some solutions may have been inspired by the work of others or required external help, in which case proper attribution is given (see [Section 3](#)). If you notice any errors or have suggestions for improvement, I would greatly appreciate hearing from you at samuelbaraujo19@gmail.com.

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1 Problems

1. Points A, B, C, D, E lie on a circle ω and point P lies outside the circle. The given points are such that
 - (i) lines PB and PD are tangent to ω ,
 - (ii) P, A, C are collinear, and
 - (iii) $DE \parallel AC$.

Prove that BE bisects AC .

2 Solutions

2.1 Problem 5

3 Refereneces