Problem 6 (due Monday, April 22)


Let $\$ M, N \$$ be the midpoints of the sides $\$ A B \$$ and $\$ C D \$$ respectively. Prove that the area of the triangle $\$ P M N \$$ is equal to the quarter of the absolute value of the difference between the area of the triangle \$DAP\$ and the area of the triangle \$BCP\$: $$
\text\{area\}(\triangle
| MNP) \(=\backslash\) frac \(\{1\}\{4\} \backslash\) left||text \(\{\) area \(\}(\backslash\) triangle DAP)-\text \(\{\) area \(\}(\backslash\) triangle BCP) \right |.
$$

L

We received only one solution, from Sasha Aksenchuk. Sasha's solution uses analytic geometry and is similar to one of our in-house solutions. For a complete solution see the following link Solution.

## From: <br> http://www2.math.binghamton.edu/ - Binghamton University Department of Mathematics and Statistics

Permanent link:
http://www2.math.binghamton.edu/p/pow/problem6s24
Last update: 2024/04/29 05:32

