



Taylor & Francis
Taylor & Francis Group

Proof Without Words: Cosine Difference Identity

Author(s): Long Wang

Source: *The College Mathematics Journal*, Vol. 45, No. 5 (November 2014), p. 370

Published by: Taylor & Francis, Ltd. on behalf of the Mathematical Association of America

Stable URL: <https://www.jstor.org/stable/10.4169/college.math.j.45.5.370>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>

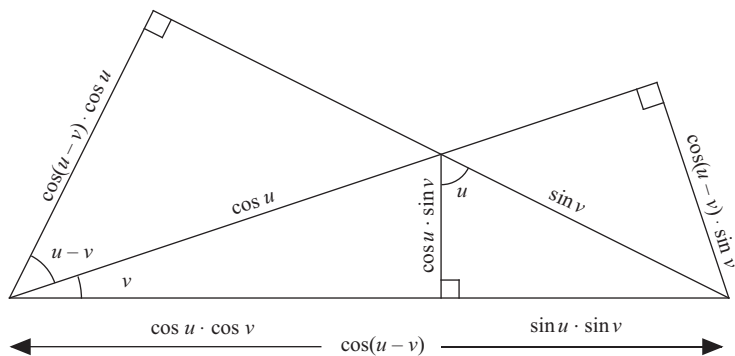


JSTOR

Mathematical Association of America and Taylor & Francis, Ltd. are collaborating with JSTOR to digitize, preserve and extend access to *The College Mathematics Journal*

Proof Without Words: Cosine Difference Identity

Long Wang (lwang@spsu.edu), Southern Polytechnic State University, Marietta GA



$$\cos(u - v) = \cos u \cdot \cos v + \sin u \cdot \sin v.$$

Summary. We give a visual proof of the cosine difference formula.

References

1. Y. Kobayashi, Proof without words: Tangent double angle identity, *College Math. J.* **44** (2013) 47, <http://dx.doi.org/10.4169/college.math.j.44.1.47>.
2. R. Nelsen, *Proofs Without Words*, Mathematical Association of America, Washington, DC, 1992, 34–35.
3. L. Wang, Proof without words: Sine sum identity, *College Math. J.* **45** (2014) 190, <http://dx.doi.org/10.4169/college.math.j.45.3.190>.

<http://dx.doi.org/10.4169/college.math.j.45.5.370>
MSC: 51M15, 97G60