

# A Very Short Proof that Every Right Triangle has a Periodic Billiard Path

Richard Evan Schwartz \*

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In the early 1990s it was shown independently by [GSV] and [H] that every right triangle has a periodic billiard path. Here is a shorter proof:

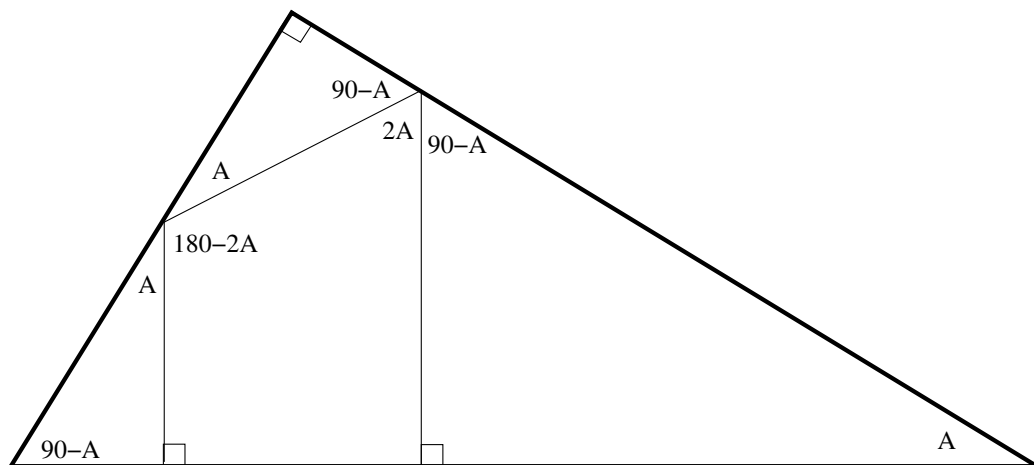


Figure 1

## 1 References

[GSV], G.A Galperin, A. M. Stepin, Y. B. Vorobets, *Periodic Billiard Trajectories in Polygons*, Russian Math Surveys **46** (1991) pp. 204-205.

[H] F. Holt, *Periodic Reflecting Paths in Right Triangles*, Geometriae Dedicata **46** (1993) pp. 70-93

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