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**Similarity vs. the “in-and-out complementary principle”: a cultural faux pas.**

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Summary: Modern investigators of early Chinese mathematical classics have often attributed a recognition and application of the principles of geometric similarity to the authors and commentators of these works. In problem situations involving the use of sighting poles and the determination of a remote distance, Chinese mathematicians frequently employed proportionality relations involving the sides of relevant pairs of right triangles. In such situations the modern western observer sees similarity; however, the Chinese employed a concept now called “the in-and-out-complementary-principle” IOCP. They did not use geometric similarity. This article identifies the issues of confusion and examines the concept and application of IOCP.

*Classification:* A30 G40

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