

This month's mind-bender is taken from *Mathematical Olympiads 1998 – 1999* (0883858037) , edited by Titu Andreescu and Zuming Feng, published by the Mathematical Association of America, and distributed outside the United States by Cambridge University Press

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Cheap Sheep

A group of shepherds have 128 sheep among them. If one of the shepherds has at least half of the sheep, each of the other shepherds steals as many sheep as he or she already has. If two shepherds each have 64 sheep, one of these two shepherds steals all the sheep from the other. Suppose that seven rounds of theft occur. Prove that one shepherd ends up with all the sheep.

Difficulty: Fairly simple

The solution for each month's mindbender will be available the next month.

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