

**ZMATH 2016e.00611**

**Lalov, Chavdar**

**A new approach for solving the generalized 2 jugs decanting problem.**

Parabola 52, No. 1, 7 p., electronic only (2016).

Summary: You have a 3L jug and a 5L jug. Each is empty but you have tap of running water that you can use to fill each jug. Can you fill the big jug with 4L water by filling, emptying and pouring water from one jug to the other? This article shows how you can solve these type of problems in general.

*Classification:* F60

*Keywords:* decanting problems; two bucket problems; two jug problems; extended Euclidean algorithm; Diophantine equations; integers; divisibility; gcd; lcm; problem-solving strategies

[https://www.parabola.unsw.edu.au/files/articles/2010-2019/volume-52-2016/issue-1/vol52\\_no1\\_3.pdf](https://www.parabola.unsw.edu.au/files/articles/2010-2019/volume-52-2016/issue-1/vol52_no1_3.pdf)