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Robert J. Young* (ryoung@math.toronto.edu). *Filling multiples of embedded curves.*

Filling a curve with an oriented surface can sometimes be "cheaper by the dozen". For example, L. C. Young constructed a smooth curve drawn on a Klein bottle in \mathbb{R}^n which is only about 1.3 times as hard to fill twice as it is to fill once and asked whether this ratio can be bounded below. We will use methods from geometric measure theory to answer this question and pose some open questions about systolic inequalities for surfaces embedded in \mathbb{R}^n . (Received August 12, 2013)