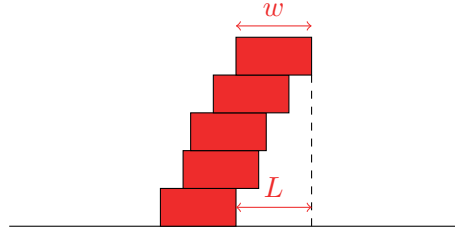


Stacking Bricks

Given a bunch of identical bricks of width w , we want to know what is the maximum “overhang” L that we can obtain, without gluing the bricks together, by stacking the bricks one on top of the other:



- (a) Find the maximum “overhang” as a function of the number N of stacked bricks, $L(N)$.
- (b) Comment on the feasibility of stacking bricks to get a large overhang, by stating reasonable lower and upper bounds for $N(L)$, the inverse of the above answer. For example, how many bricks must be stacked to obtain $L = 10w$? (You can give a rough answer.)

Typically to form arches, you would therefore use stones which are curved and specially fit to allow for larger overhangs.