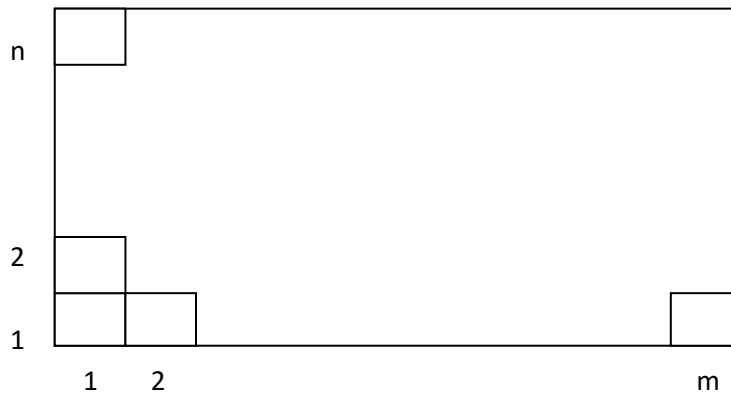


A 5.25 m by 3.78 m rectangular courtyard is to be paved with square tiles of the same size such that only whole tiles are used. What is the largest possible size of such a tile? Also, find the number of tiles required.

**Solution**



Let  $a$  be the edge of the square tile.

Then,  $a.m=5.25$  and

$a.n=3.78$

Dividing,  $\frac{m}{n} = \frac{525}{378} = \frac{175}{126}$  (dividing by 3) =  $\frac{25}{18}$  (dividing by 7)

Smallest value of  $m = 25$  and smallest value of  $n = 18$  (for the square tile to be of largest size,  $m$  &  $n$  should be the least)

Number of tiles =  $m.n = 25 \times 18 = 450$