



# Problem of the Week

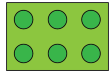
## Problem B

### Playing with Bricks

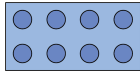
Saskia has the following five sizes of Lego™ bricks.



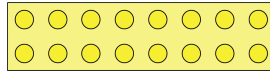
$2 \times 2$



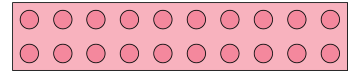
$2 \times 3$



$2 \times 4$



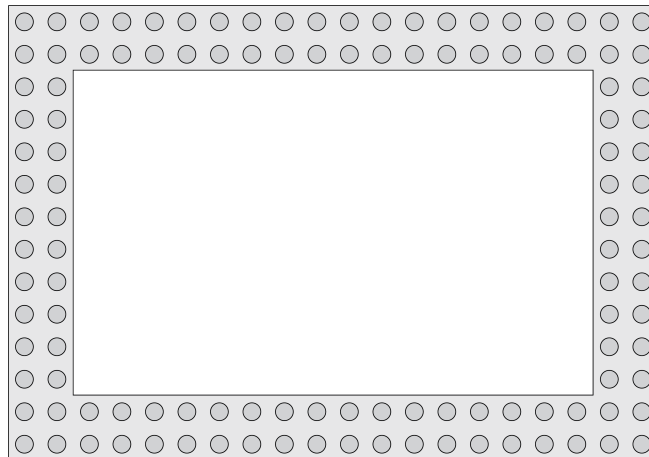
$2 \times 8$



$2 \times 10$

For each question below, assume that Saskia will never run out of bricks.

- (a) Saskia wants to make a row of bricks that measures  $2 \times 16$ . Which of her brick sizes can she use if all bricks used must be the same size?
- (b) Saskia wants to make a rectangular frame of bricks that measures  $14 \times 20$  on the outside, as shown. Which of her brick sizes can she use if all bricks used must be the same size?



- (c) Saskia wants to make a rectangular frame of bricks that measures  $320 \times 420$  on the outside. What is the largest brick size that she can use if all bricks used must be the same size?