# Ämnesprov, läsår 2013/2014

# Mathematics

**Delprov E** 

Årskurs

6

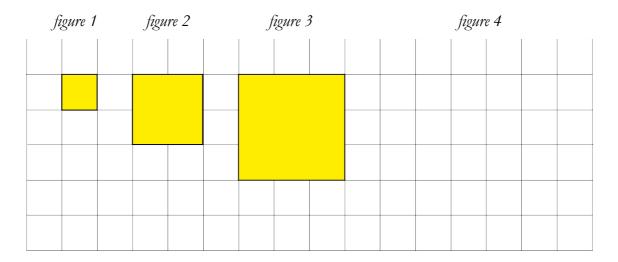
Elevens namn och klass/grupp

Aids: Calculator, ruler

## Task 30. Patterns with squares

(4/4/5)

#### Pattern I

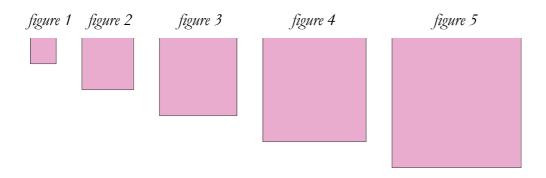


- a) Draw figure 4 in the pattern.
- b) What is the area of figures 2, 3 and 4? Fill in the table.

The figure's number	1	2	3	4
The size of the area (cm <sup>2</sup> )	1			

- c) We're now going to determine the area of two figures in the pattern. How large an area does *figure 7* have? How large an area does *figure 13* have? *Show your working.*
- d) We only know the number of the figure. How can we use this to determine the area of a figure in the pattern? You can either explain in words or use a formula.
- e) What is the number of the figure that has the area 400 cm<sup>2</sup>? *Show your working.*

### Pattern II



The figure's number	1	2	3	4	5
The area's size in area units (a.u.)		16	36	64	
The length of the side in length units (l.u.)					

- a) Fill in the table.
- b) Explain how you arrived at the size of the area in figure 1 and figure 5.

c) What is the number of the figure that has the area 256 a.u.? *Show your working.* 



