

Sujet n°16

Please do not write on this document and do not forget to hand it back to the jury at the end of the exam.

SEQUENCES

Patterns 1, 2, 3 and 4 in a continuing sequence are shown.

Max and Lily are discussing the best way to count the number of squares in pattern 50.

Max finds 202 squares and he works out $50 \times 4 + 2$.

Lily finds the same number of squares but she works out $4 \times (50 + 2) - 6$.

1. Who is right? Explain your answer.

2. Do you know famous sequences?

Introduce special sequences and give their n th term.