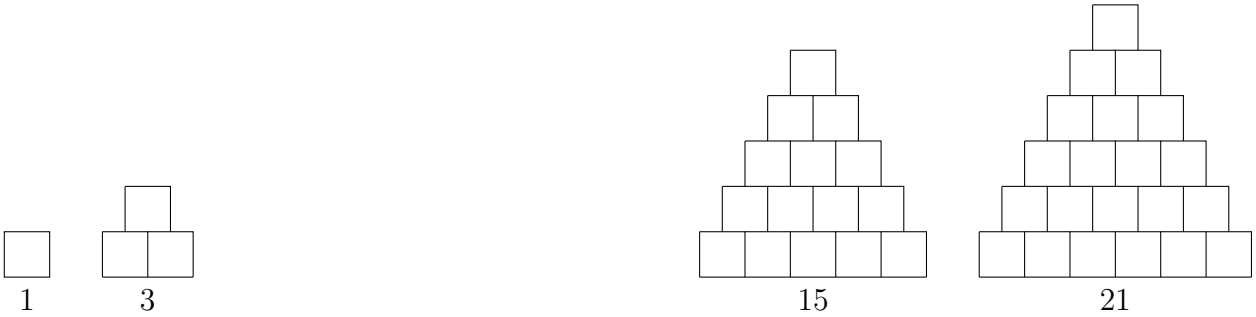
1. 1. **not. written yet**

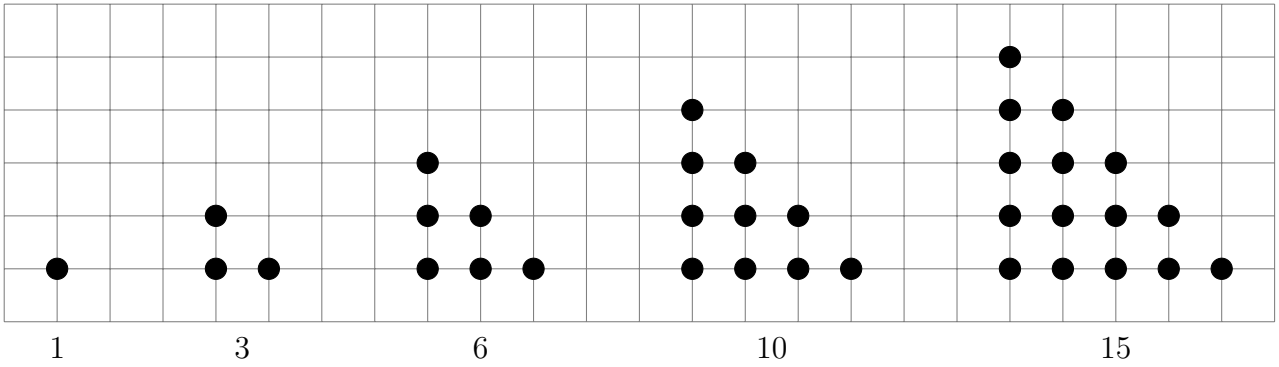
2. 2. **not. written yet**

3. 3. **not. written yet**

4. The number of dots {or squares} in each pattern is a triangle number.



(a) Write down the 3rd and 4th triangle numbers.



(b) Write down the next triangle number

(c) Here is a sequence of triangle numbers.

1 3 6 10 15 21 28

The rule to continue a triangle number sequence is add on one more each time.

Write down the next triangle number.

5. **not. written yet**

6. Here are the first seven terms of a Fibonacci sequence.

1 1 2 3 5 8 13

The rule to continue a Fibonacci sequence is,

the next term in the sequence is the sum of the two previous terms.

Find the 10th term of this sequence.

7. 7. **not. written yet**

8. Here are the first five terms of a sequence.

   2 10 24 44 70

   An expression for the nth term of this sequence is $3n^2 - n$

   Write down in terms of n, an expression for the nth term of a sequence whose first five terms are

   -2 -10 -24 -44 -70