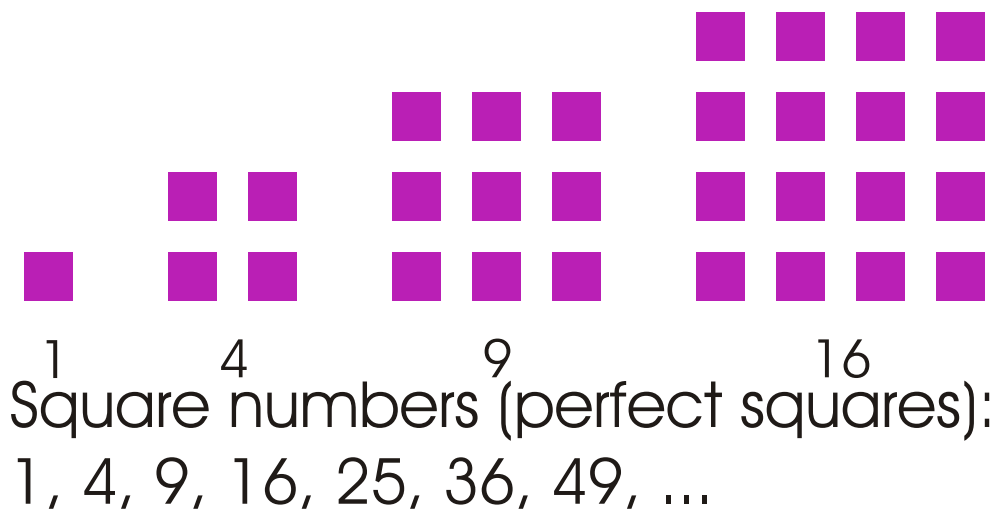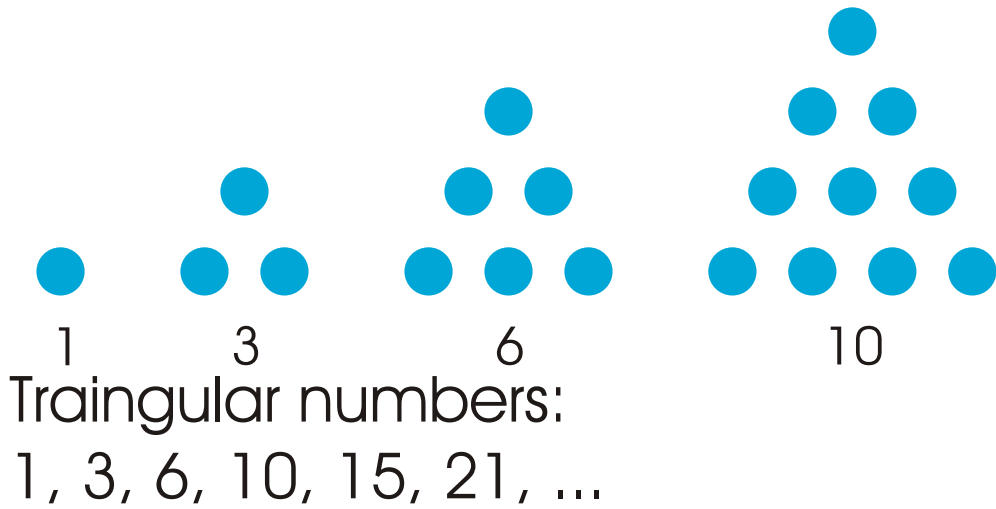A figurate number is a number that can be represented by a simple shape such as a triangle or a square. Figurate numbers are formed using simple shapes such as circles, squares, stars, etc.

1   3   6   10

Traingular numbers:
1, 3, 6, 10, 15, 21, ...

1   4   9   16

Square numbers (perfect squares):
1, 4, 9, 16, 25, 36, 49, ...

The numbers {1, 7, 19, 37, ...} are called a centered hexagonal numbers. Can you figure out the pattern? They are related to the triangular numbers, can you see how?

visit the link below to see an explanation.
http://en.wikipedia.org/wiki/Centered_hexagonal_number

1

7

19

37