## HOMEWORK \#2

ASSIGNED: SEPT 12-14, 2018; DUE: OCT 2, 2018 (OCT 4 FOR TUTORIAL 02)

The figures below are line drawings made up of arrays of triangles. Assume that the sequence of figures continues and that there are $n$ triangles in the bottom row of the $n^{\text {th }}$ figure in the sequence. How many triangles in total are there in the $n^{\text {th }}$ figure in the sequence?

Include in your count even triangles which contain smaller triangles. Make sure that you explain completely how you arrived at your answer and follow the expectations outlined on the web page for your homework. Write your solution in LaTeX and upload your pdf file to Moodle.


Can you generalize your results to other sequences of shapes?

