⬕ Pyramid Math

Examine the different parts of a pyramid:

Slant Height

Altitude

Line of
Symmetry

Vertex

Face
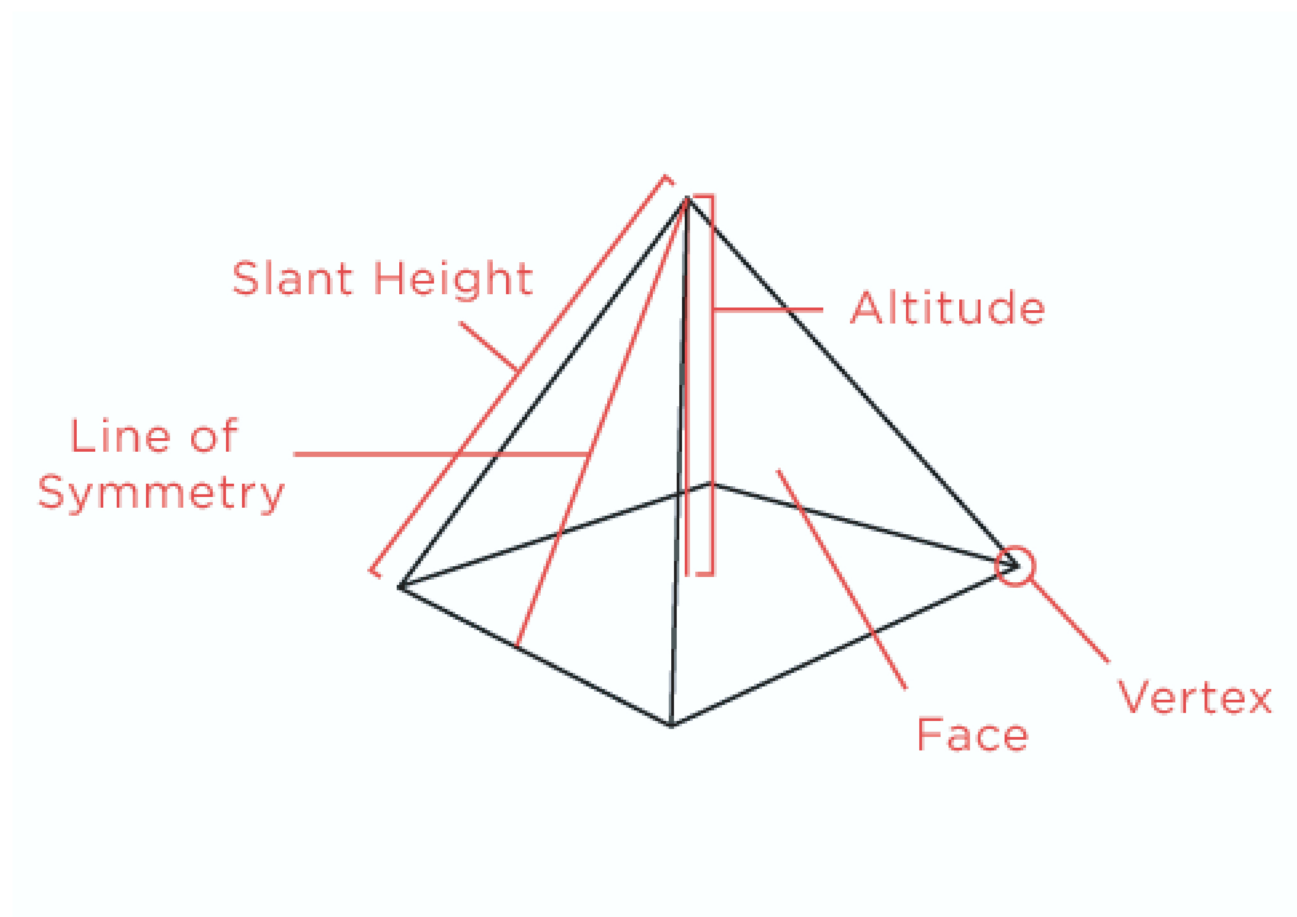
How many blocks are in LeWitt's *Pyramid*? Make an estimate. Enter it here:_____
Compare your estimate to your classmates'.
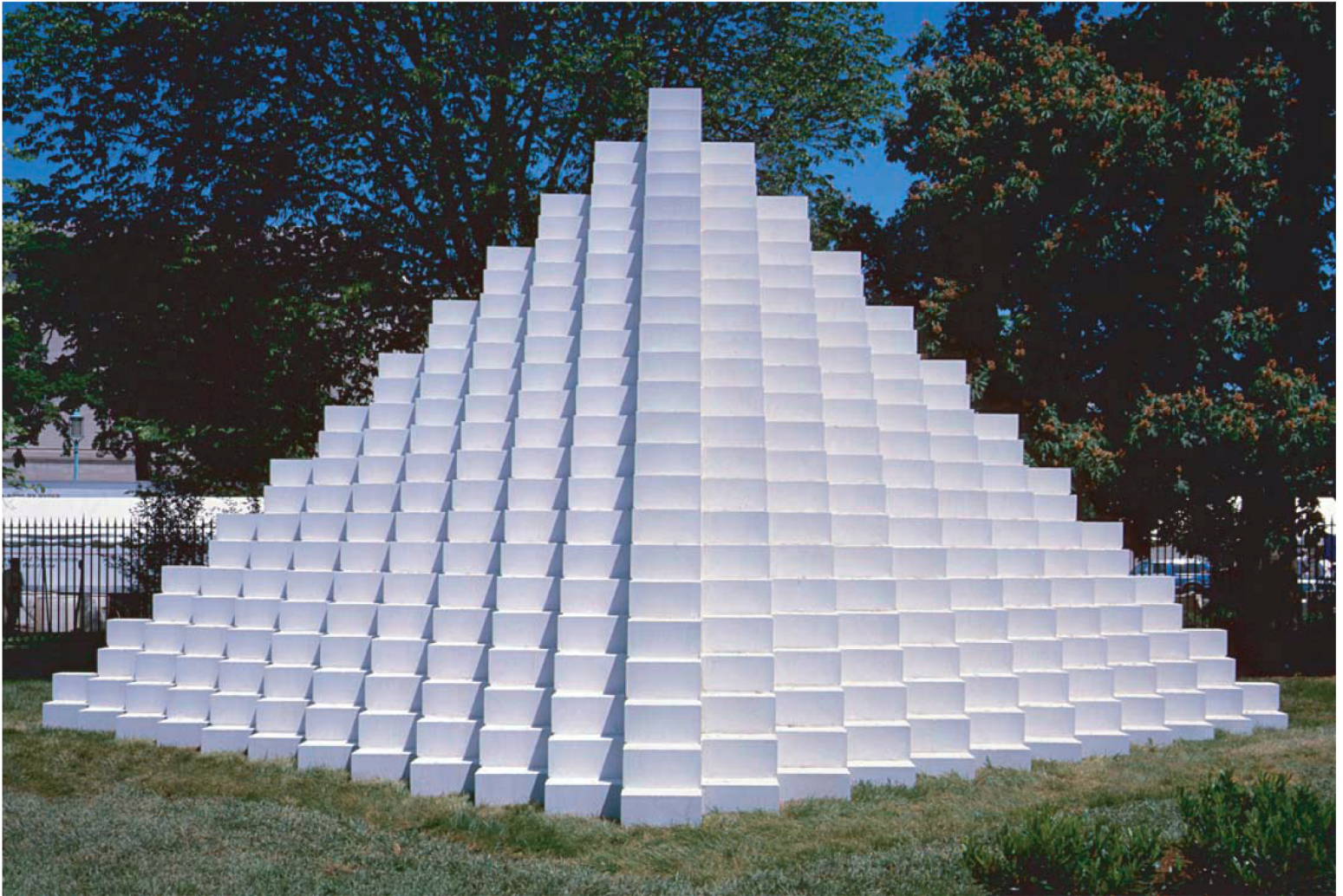
Sol LeWitt
Four-Sided Pyramid
first installation 1997, fabricated 1999

Pyramid Math

Now figure out how close your estimate is to the actual number of blocks.

- Count the blocks along the lines of symmetry.

- Now count the number in each column. Is there a pattern to the stacking of the blocks? How is the number of blocks in each column related to the number in the column next to it? This pattern is called an arithmetic sequence.

- Now calculate the number of cubes in the four faces of the pyramid. Write your answer here: _____

Here's how to figure it out: There are four lines of symmetry, each containing 24 blocks. You need to find how many blocks are in each face, multiply that by 4, and then add in the four lines of symmetry.

The formula is an arithmetic sequence . . . plus the blocks in the four lines of symmetry: $4(22 + 20 + 18 + 16 + 14 + 12 + 10 + 8 + 6 + 4 + 2) + 4(24) = 4(132) + 4(24) = 624$ blocks. There are 624 blocks covering the four faces of the pyramid. Each face has 132 blocks plus the 24 blocks in each line of symmetry.