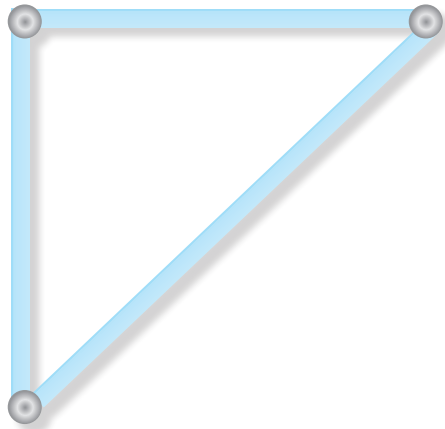


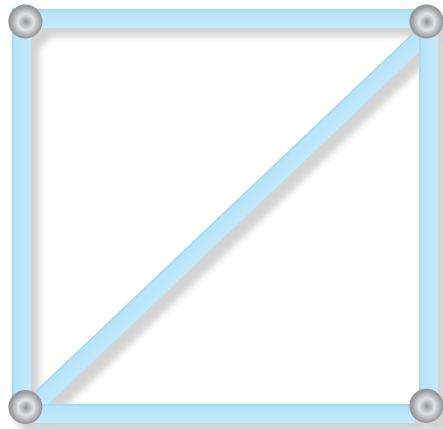
RAT SHOW

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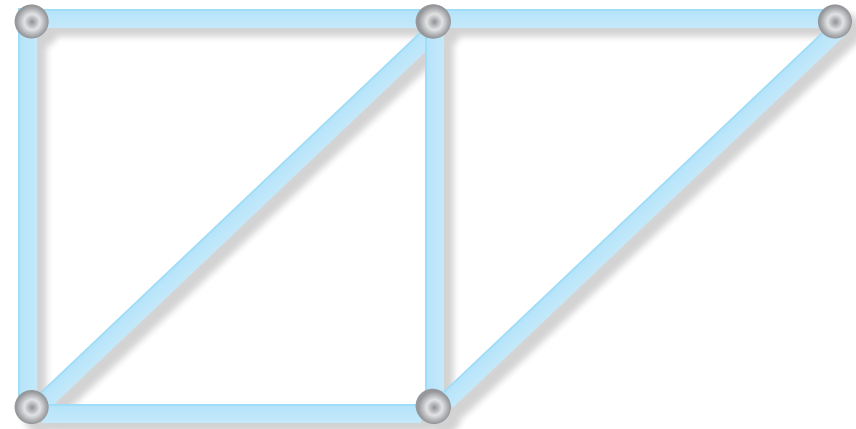
At a rodent show the rats were kept in triangular shaped pens.
 The pens were made with sections of glass joined at the corners with glass putty.



1 triangle



2 triangles



3 triangles

- a How could you work out the number of glass sections that would be needed for 15 cages in a row?

Using a table.



Number of triangles	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Number of glass sections	3	5	7												

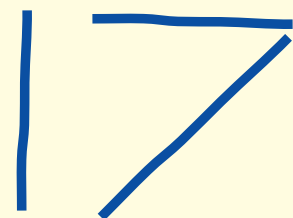
- b Suggest a quicker way.

RAT SHOW

PAGE 2 OF 2

Drawing a diagram and using multiplicative thinking.

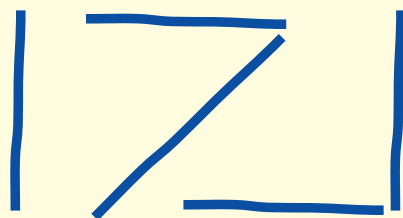
1 triangle



$$1 + 2$$

$$1 + (1 \times \underline{\quad})$$

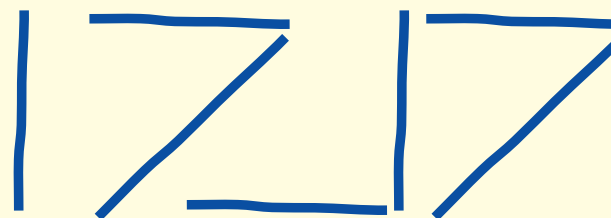
2 triangles



$$1 + 4$$

$$1 + (\underline{\quad} \times 2)$$

3 triangles



$$1 + 6$$

$$1 + (\underline{\quad} \times \underline{\quad})$$

... 15 triangles

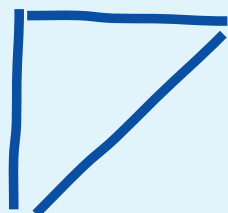
$$1 + (\underline{\quad} \times \underline{\quad})$$

$$= 1 + \underline{\quad}$$

$$= \underline{\quad}$$

OR

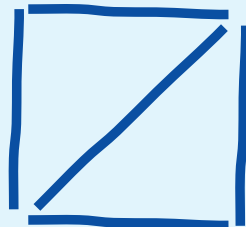
1 triangle



$$3$$

$$3$$

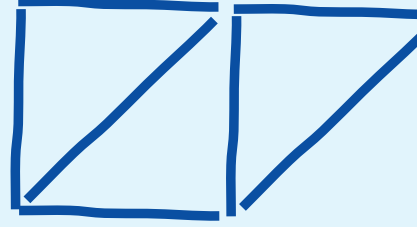
2 triangles



$$3 + 2$$

$$3 + (1 \times 2)$$

3 triangles



$$3 + 4$$

$$3 + (2 \times 2)$$

... 15 triangles

$$3 + (\underline{\quad} \times 2)$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$