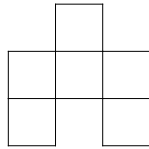


PENTOMINOES

Pentominoes belong to a family of geometrical objects called 'polyominoes' – shapes made from squares only, where the touching squares share a full side.

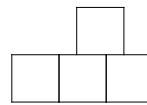
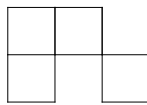
A pentomino is made up of five squares.

The following shape is a polyomino (a 'hexomino' to be specific, as it contains 6 squares).



A polyomino.

The shapes below are not polyominoes.



These are NOT polyominoes.

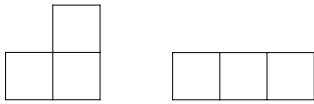
1. A triomino is a polyomino that contains three squares. Use one of Geo-Pro's squares to construct as many different triominoes as you can.
2. A tetromino is a polyomino containing 4 squares. Draw all the possible tetrominoes.
3. There are 12 different pentominoes. Try to sketch them all.
4. One way of naming the pentominoes individually is using the letters STUVWXYZ FLIP. By flipping or rotating your sketched pentominoes, see if you can identify which letter goes with which pentomino (this may take a little imagination in some cases).

Extension.

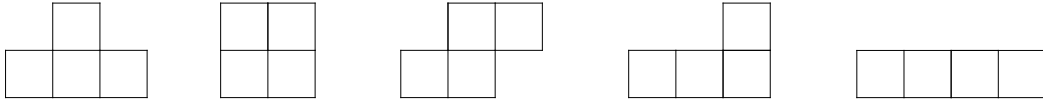
How many of the 35 different hexominoes you can find? Can you find the 11 that can be folded to form a cube if cut out of cardboard?

Answers
PENTOMINOES

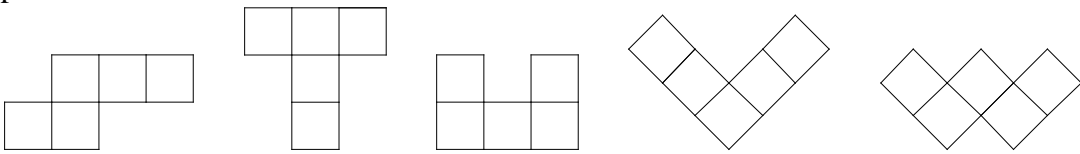
1.



2.



3. The mnemonic 'STUVWXYZ FLIP' is a useful one for remembering the 12 pentominoes.



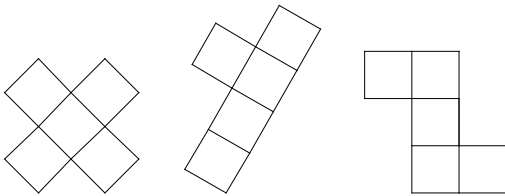
S

T

U

V

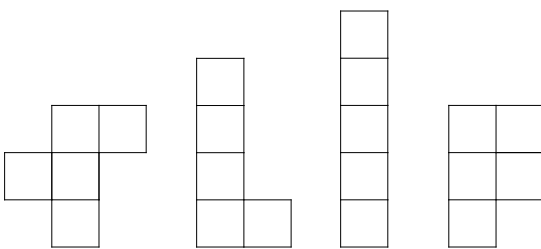
W



X

Y

Z



F

L

I

P

4. See above.