## SOCIEDAD ASTURIANA DE EDUCACION MATEMATICA

## Agus τίν δε Ρεδιταψες

## **HEXOMINOES**

In the previous activity you have seen that **pentominoes** can be obtained analyzing all the possibilities of fitting 5 squares (so that the pentomino cannot move), joined completely to each other by a side, in **rectangular boxes** of 1x5, 2x4, 2x3 and 3x3. In a similar way, **hexominoes** also are possible to be obtained looking for all the possibilities of fitting 6 squares in **rectangular boxes** (the box would be the frame in which it would exactly fit the hexomino), whose dimensions in this case could only be: 1x6, 2x5, 2x4, 2x3, 3x4 y 3x3. Thus, it is easier to find the 35 possible hexominoes, that are distributed in the following way:

Dimensions of the frame-box	Number of hexominoes
1x6	1
2x5	5
2x4	6
2x3	1
3x4	15
3x3	7

Find and draw the 6 different hexominoes that fit a box of dimension 2x4 and the 15 that fits a box 3x4.

In order to find them all use the 6 squares and the boxes of dimensions 2x4 and 3x4 that you have. When you find one **draw it** in a squared paper to know that you have already got it and not to repeat it. Use the fitting squares when you have doubts about the equality of two hexominoes.

Which of the hexominoes that you have found and drawn are a flat development of a cube?

It is better to do these activities with a mate in a similar way than the ones in the activity of pentominoes.

## YOU WILL NEED:

A box 2x4, a box 3x4, 6 squares, 12 fitting squares, pencil a one squared paper.