nrich

Specialists in rich mathematics
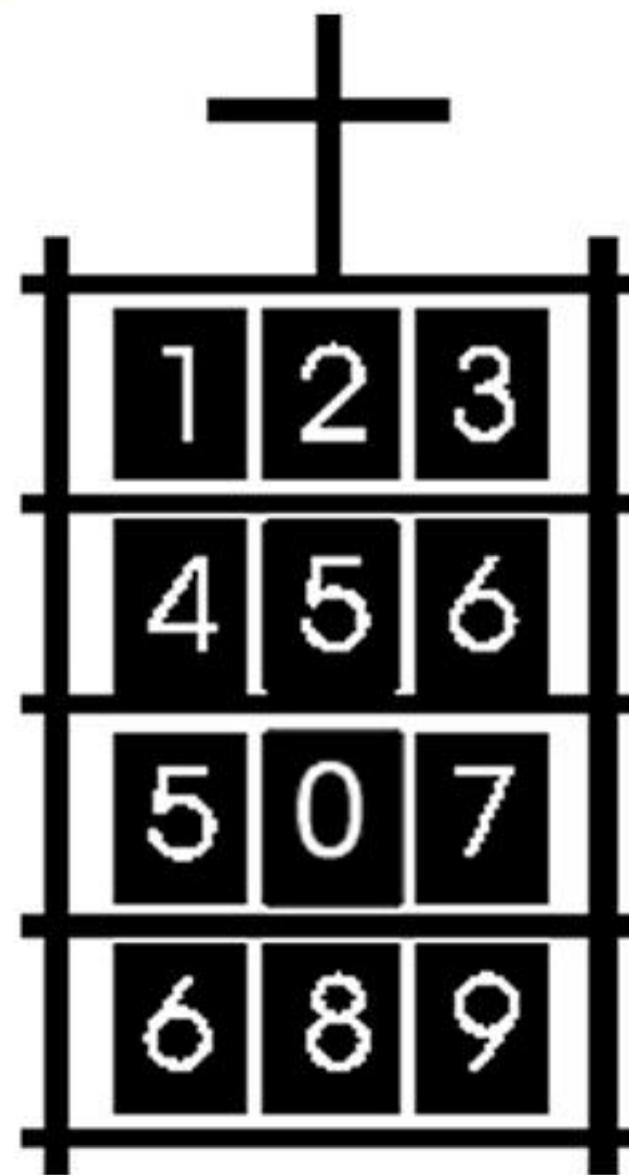
(W)holy Numbers

A church hymn book contains 700 hymns, numbered 1 to 700. Each Sunday the people in church sing four different hymns.

The numbers of the hymns are displayed in a frame using single-digit boards, like this one.

2

The board for 6 may be turned upside down to serve as a 9.

What is the minimum number of small boards that is needed to show any possible combination of four hymn numbers?