

## Pig Pen Puzzle

What to do: You have to slot the fences together to form separate pens for the 4 pigs in the square.

## HOW TO DO IT

1. The wooden "fences" each have three slots in one side, like a comb. They fit together, a long slot in one fitting a short slot in the other. The problem is to use the set of slotted fences available to make the perfectly fitting pen.
2. The six fences are all different, and are the complete set of combinations of 3 short and long slots:
LLL, LLS, LSL, LSS, SLS and SSS.
3. If you proceed by trial and error you will usually find that the last fence won't fit! Remove the "top" fences to turn a "bottom" one round and try again. There are 60 different ways in which the bottom three fences can be chosen, so a systematic search for solutions is a lengthy procedure!
4. Two ways of solving the puzzle easily are: a. put two fences down so that there are identical slots at the corners of the square (e.g. LLL and LSL on opposite sides);
b. put LLS or LSS across the middle of the puzzle.
Completing the puzzle from these starting positions is simpler, but still interesting enough.

