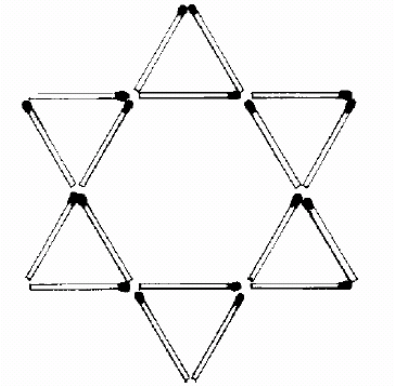
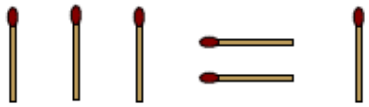
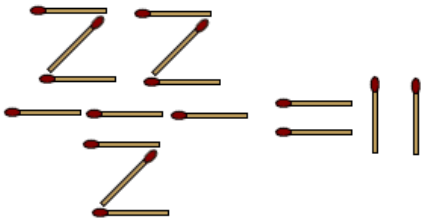
1. Eighteen matches form a Solomon's seal, which comprises eight triangles. Move two matches and reduce the number of triangles to six.



2. Move two of the matches to make a correct equation.

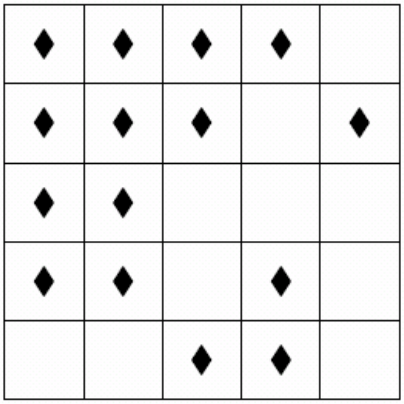


3. Move one of the matches to make another correct equation.

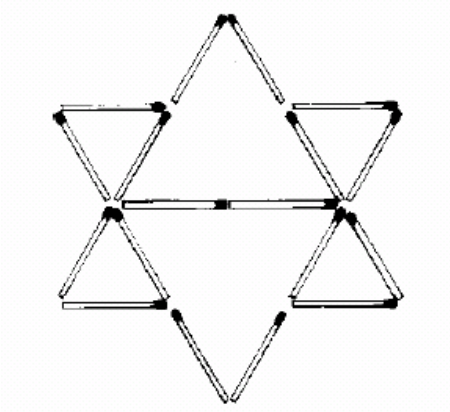


4.

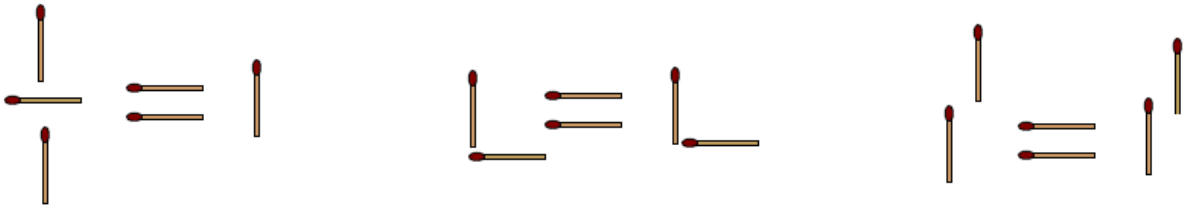
What is the fewest crickets that must hop to new locations so that each row and each column has three crickets? Crickets can jump from any square to any other square.



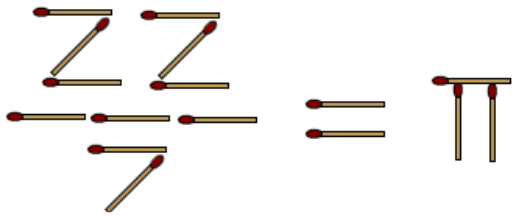
1.



2.



3.



4.

Solution: Notice that two rows have four crickets, so at least two crickets must move. The pair of crickets at $(1,5)$ and $(2,4)$ on the main diagonal can be moved to $(5,3)$ and $(5,1)$ as shown.