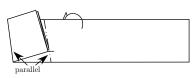
The Miura Map Fold

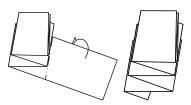
This fold was invented by the Japanese astrophysicist Koryo Miura as a method for deploying large solar panel arrays on space satellites. It's also been used to easily fold and unfold maps.



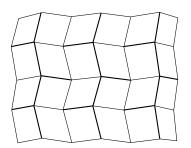
(1) Take a rectangle of paper and mountain-valley-mountain fold it into 1/4 ths lengthwise.

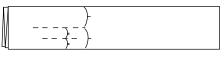


(4) Fold the remainder of the strip behind, making the crease parallel to the previous crease.



(6) Repeat this process until the strip is all used up. Then **unfold** everything.

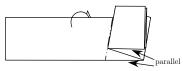




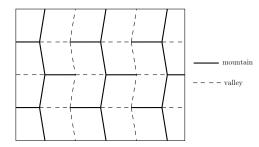
(2) Make 1/2 and 1/4 pinch marks on the side (one layer only) as shown.



(3) Folding **all layers**, bring the lower left corner to the 1/4 line, as in the picture.



(5) Repeat, but this time use the fold from step (3) as a guide.



(7) Now re-collapse the model, but change some of the mountains and valleys. Note how the zigzag creases alternate from all-mountain to allvalley. Use these as a guide as you collapse it...

In the end the paper should fold up neatly as shown to the left. You can then pull apart two opposite corners to easily open and close the model.

