

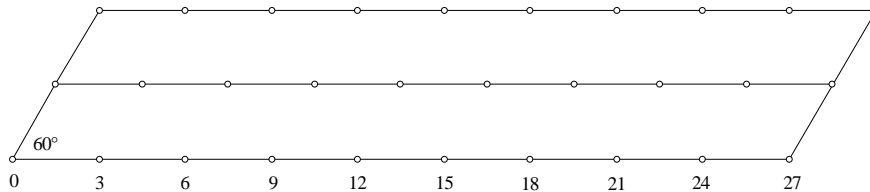
A ROTATING RING OF TETRAHEDRA

The model below is made up of eight tetrahedra joined together to form a ring which may be rotated inside out! To construct a rotating ring of tetrahedra, follow the instructions below.

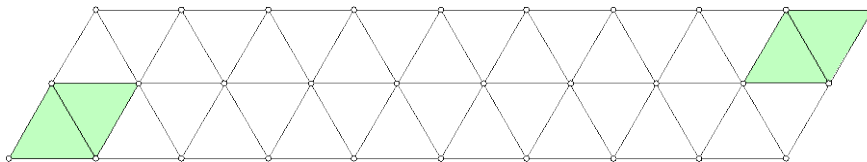
1. Use the longer ruler on Geo-Pro to rule a line 27 cm (270 mm) long and mark points every 3 cm (30 mm) on a piece of card.



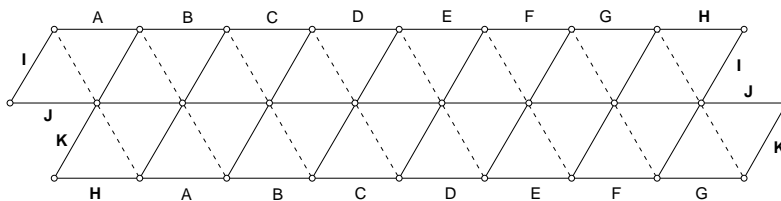
2. Construct a parallelogram with a 60° angle at left, as shown. Rule a centre line and divide all lines into 3 cm sections. Score the centre line using a ball point pen.



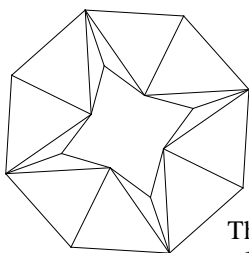
3. Join the points required to divide the parallelogram into equilateral triangles of side length 3 cm, scoring all internal lines as you go.



4. Cut out the parallelogram and remove the sections shown as shaded in the above diagram.



5. Study the diagram above. Make 'valley folds' along solid lines and 'mountain folds' along dotted lines. Tape edges marked with the same letter together to form a ring of tetrahedra.



The Rotating Ring of Tetrahedra.

Extension.

Try adding triangles to the net in multiples of four to make a longer ring of tetrahedra. (Attach triangles at both I and K sides.)