

WELCOME

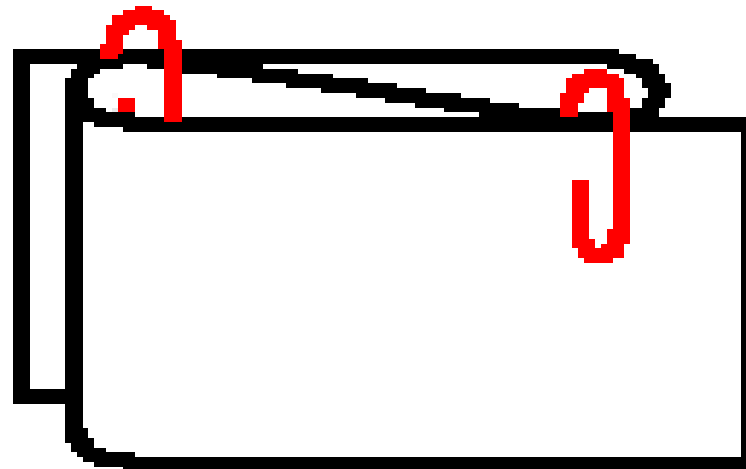
to

IT Tralee

MLC @ ITT

Paperclips

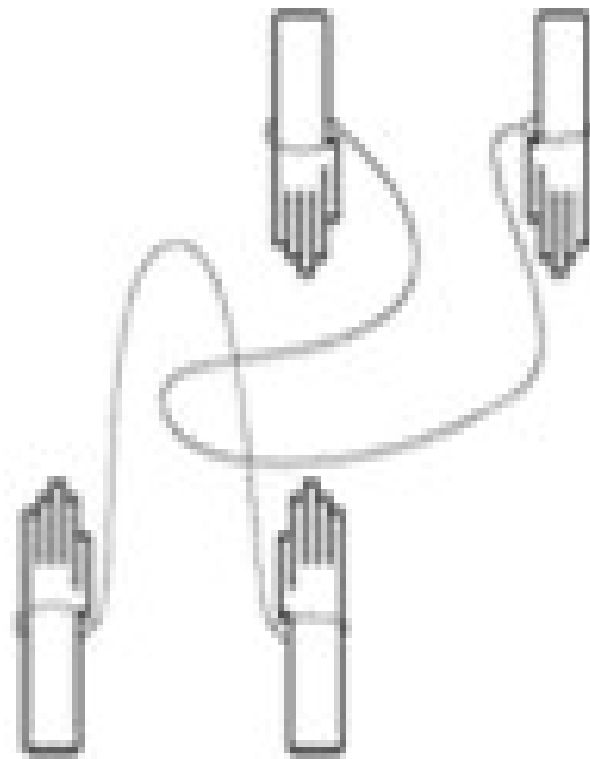
Fold the paper over and then back, so you get a Z-shape (see image). Now slide the paper clips on from one side, so that the paper is held in this shape. Each paper clip needs to go inside an angle of the z.



How far apart will the clips land when you pull the paper?

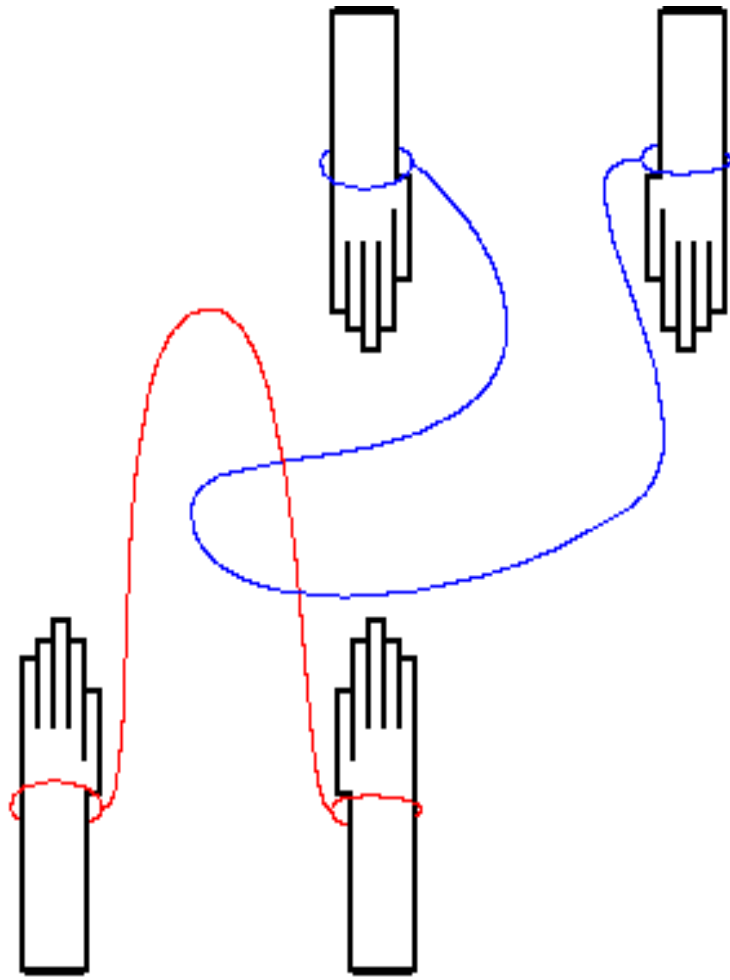
Handcuff Puzzle

- Use the string, to handcuff 2 people together, make sure to loop the handcuffs around each other so they are tied together. Now try to separate yourselves using ...

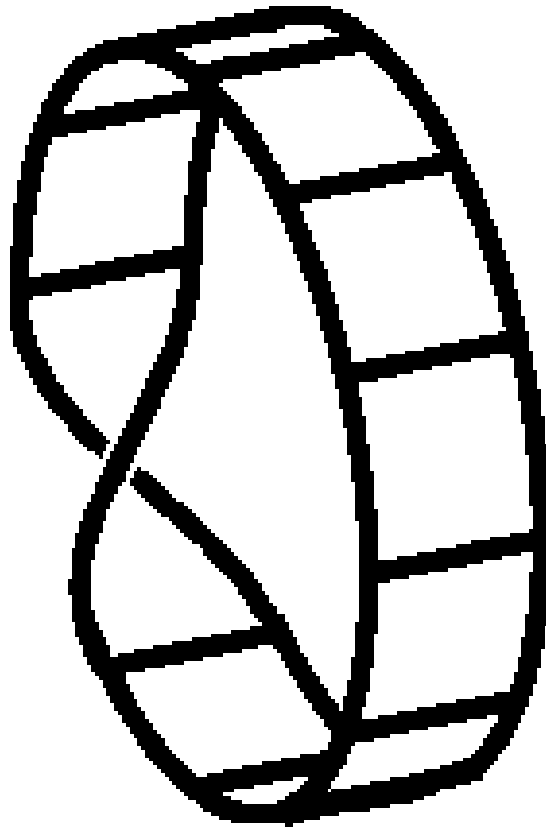


The Rules!!!

- The handcuffs cannot be removed from your wrists.
- Do not break, cut, saw through, bite through or in any other way damage the rope. Damaging each other is probably a bad idea too!



Möbius Strip

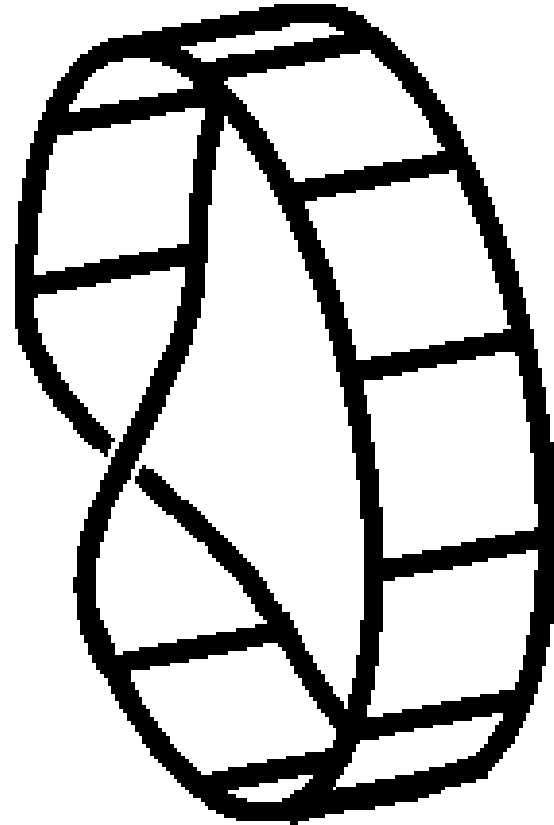


a twisted loop

Escher



To make one,
Take a strip of
paper and some
sticky tape. Turn
the paper into a
loop, but before
you stick it
down, flip one
end of the paper
over.

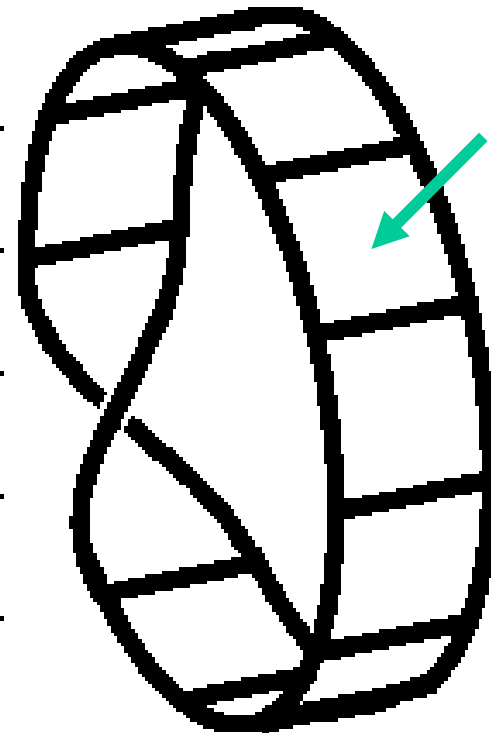


How many **sides** does it have? _____

To test your guess, draw a line down the middle of the strip until you get back to your starting point.

What happened? _____

Why? _____

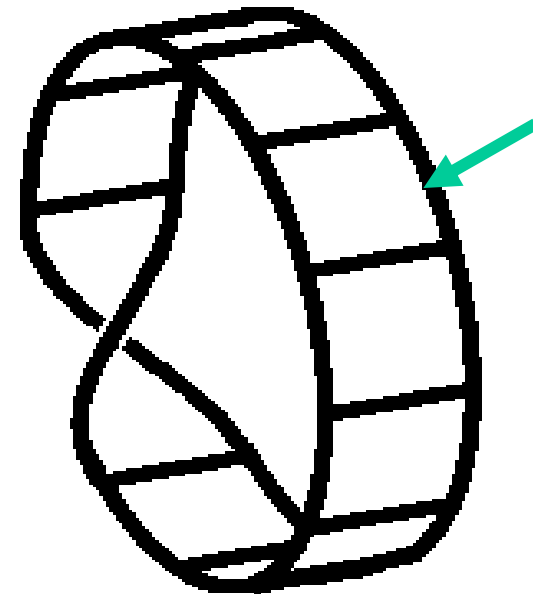


How many **edges** does it have? _____

To test your guess, mark a point on the edge, trace along the edge with your finger.

What happened? _____

Why? _____



What will happen if you cut along the line
you have drawn down the middle of the
side? _____

Test your guess.

(To start the cut off, fold the strip and
make a small cut, then unfold the strip
and use the hole as a starting point.)

Some interesting questions

- What happens if you cut this down the middle?
- What happens if you cut a Möbius Strip one third in from an edge?
- What happens if you put two twists into the strip, and cut it down the middle?
- Three twists? Four twists? ...

Even more puzzling!!

- Take two ordinary, untwisted loops. Stick them together at right angles to each other.
- Now do the same with an ordinary strip and a Möbius strip.
- What will happen when you cut down the middle of these shapes? _____

Test your guess! MLC @ ITT

Topology

Topology is a branch of mathematics. It studies the properties of objects that do not change when the object is distorted. In topology two objects are considered to be the same if each one can be distorted to the other without being cut or torn.

Lots of fun websites..

www.nrich.maths.org

http://www.questacon.edu.au/html/what_is_topology_.html

<http://www.schools.ash.org.au/bilambil/math2.html>

<http://www.bbc.co.uk/schools/>

Do you have any?

Send me the link at

joan.cleary@staff.ittralee.ie

This document was created with Win2PDF available at <http://www.win2pdf.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.
This page will not be added after purchasing Win2PDF.