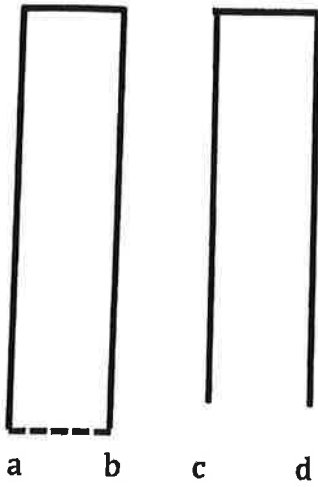


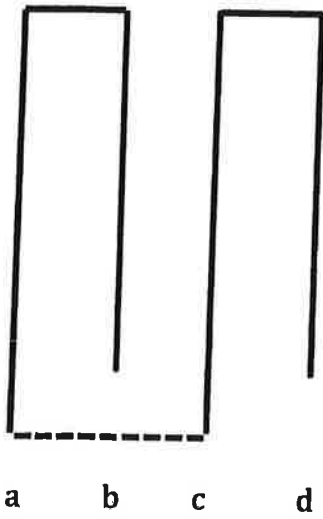
Form 1700a

1 large loop of 4 strings : _____

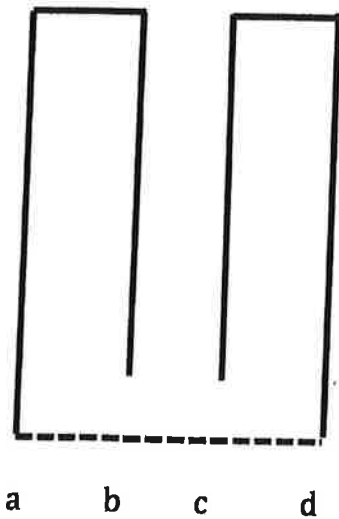
2 loops of 2 strings : _____



Notes:



Notes:



Notes:

It's KNOT fun

(The 4-string simplified version)

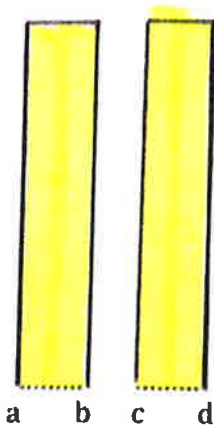
Materials: 4 pieces of string about a foot in length

Procedure: Follow the same procedure outlined in the 6-string version. The only difference being there will ONLY be 4 knots tied.

Results: With 4 strings, there are ONLY two possible outcomes:

- a) One large loop made of four strings
- b) 2 smaller loops made of two strings each

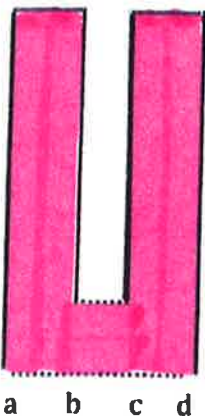
Whats Going on?



To end up with two loops of 2-strings each, string (a) must connect to ONLY string (b) [in green] and not to strings (c) and (d) [in red].

Mathematically, the probability would be calculated by:

$$1/3 \times 1/1 = 1/3$$



To end up with ONLY one loop of four strings, string (a) must connect to either (c) or (d), but NOT to string (b).

The probability for this is calculated by:

$$2/3 \times 1/1 = 2/3$$

So the probability of:

1 large loop of 4-strings = 2/3 or 66.7%

2 loops of 2-strings each = 1/3 or 33.3%