

- Let a “popsicle stick weave” be a configuration of lines segments, called “sticks”, such that
- (1) when you lift up any stick by the end, the structure supports itself (is in tension)
 - (2) the removal of any stick results in a configuration that no longer supports itself.

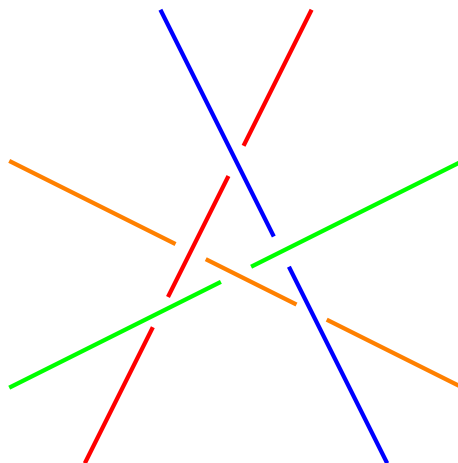


Figure 1: The unique example of a 4 stick crossing (up to reflection)

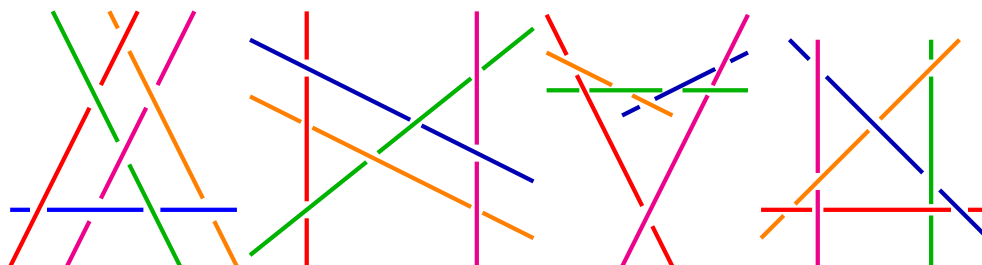


Figure 2: Four of five (?) known examples of five-stick crossings. Perhaps the fourth example shouldn't count, because shortening the blue stick to avoid the blue-red crossing results in a valid configuration (the remaining known five-stick crossing).

Question. How many distinct popsicle stick weaves exist for n sticks?

Related.

1. What if the sticks are only allowed to touch three other sticks?
2. What if the sticks are another geometric object (e.g. semicircles)?