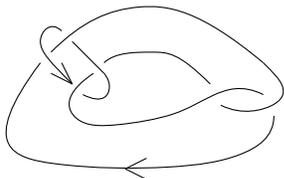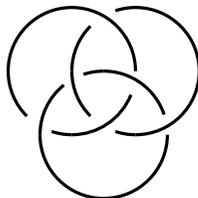## Comprehension questions

PROBLEM 15.1. *Compute the linking numbers of these loops:*

PROBLEM 15.2. *Show, by examples, that the linking number can take on any integer value.*

PROBLEM 15.3. *What's peculiar about this picture?*

(I'm not looking for anything rigorous, just an idea what phenomenon is happening here. It's not just about linking numbers!)

PROBLEM 15.4. *Suppose that* $\mathrm{link}(c, d)$ *is nonzero. Show that then, if we look at the two loops from any direction, there must be a point where c lies on top of d,* **and** *one where it lies under d. (Hint: try pulling the loops apart.)*

18.900 Geometry and Topology in the Plane
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