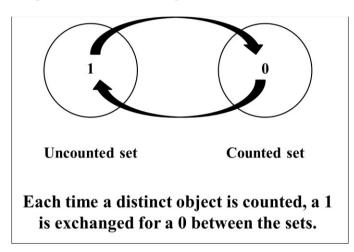
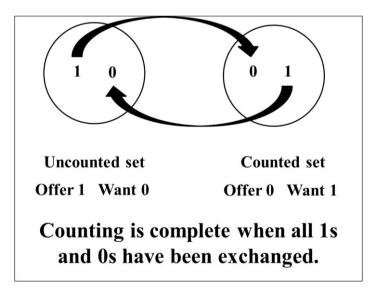
## **Uncounted and Counted Sets**

Counting is constructed using two sets, the uncounted set and the counted set. For each distinct object being counted, one unit is subtracted from the uncounted set and one unit is added to the counted set until all of the distinct objects have been counted. The uncounted and counted sets exchange 1 and 0 for each object counted.



Chiralkine treats an object as a mirror symmetric relationship between what it is and what it is not. Counting works just like the clearing of offers and wants by users in an exchange of goods and services, but where the offers and wants are 1s and 0s.

For each distinct object being counted, the uncounted set offers 1 and wants 0 and the counted set offers 0 and wants 1. Counting is complete only when all 1s and 0s have been exchanged between the uncounted and counted sets.



For example, consider the counting of one object, x. This is placed in the uncounted and counted sets (uncounted set x and counted set x), with mirror opposite offers and wants. Complete counting requires pairing both offers and wants (in either order) so as to form a ring.

For a second example, consider the counting of three distinct objects x, y and z. Each is placed in the uncounted and counted sets. They are counted as follows.

Uncounted set x offer is paired with counted set y want.

Uncounted set x want is paired with counted set z offer.

Uncounted set y offer is paired with counted set z want.

This completes a ring. All 1s and 0s can now be exchanged between the uncounted and counted sets. The offers and wants associated with uncounted and counted set x, y and z can be paired in any order, but they must all be paired to form a ring to complete the count. This treats what each object is and what each object is not mirror symmetrically.

The quantity of objects is being identified by superposition of all the different permutations of offers and wants that define a ring of relationships – a frequency.

Let us now examine how this works using chiralkine numbers. For example, if the offers start out as 0101 and the wants as 1010, counting is complete when all the 1s and 0s have been exchanged, so the offers end up as 1010 and the wants as 0101. The distinction between offers and wants has been cleared.

Instead of there being two absolute arithmetic steps (subtraction and addition), there are three coupled relational steps:

$$0101 \rightarrow 0110 \rightarrow 0011 \rightarrow 1010$$

$$1010 \rightarrow 1001 \rightarrow 1100 \rightarrow 0101$$
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