6CCS3COM Computational Models

Tutorial 5

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1. Give an interaction system to compute the Boolean function *and*.
2. Using your interaction system, draw the net representing the expression *(True and False) and True*. How many reductions are required to reduce the net to normal form?
3. Modify the interaction system to that the result is True if and only if both arguments have the same value (*i.e.* both True or both False).
4. Specify an interaction system that can generate infinite computations. Give an example net in the system that does not have a normal form (**i.e.** with an infinite sequence of interactions).
5. Define the function Parallel-and using the agent `amb`. Parallel-and is a binary Boolean operator returning the value False whenever one of the arguments is False and True when both are True.