Echo algorithm
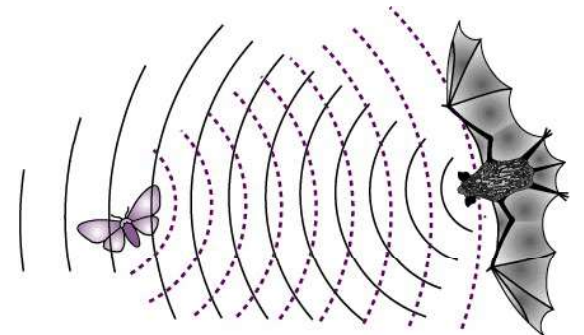
The echo algorithm is a centralized wave algorithm for undirected networks.

- ▶ The initiator sends a message to all neighbors.

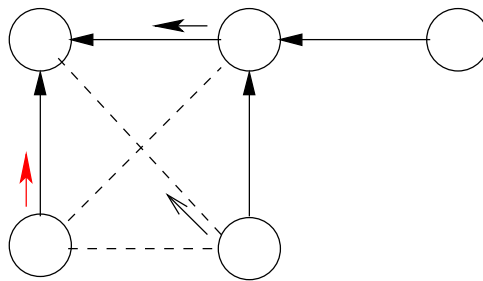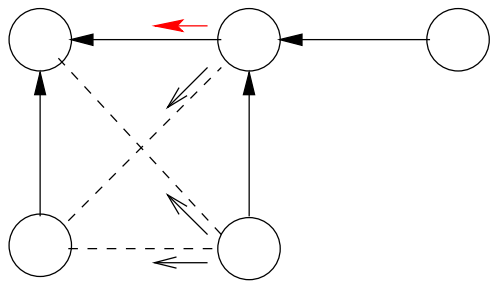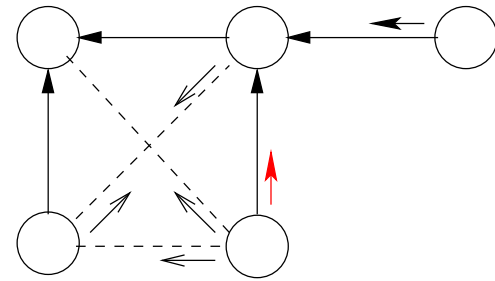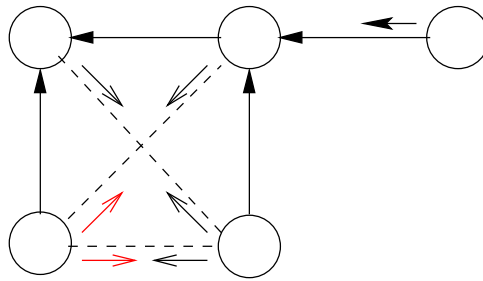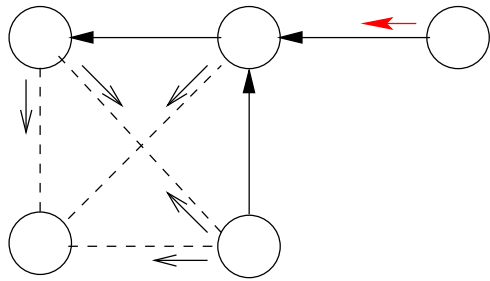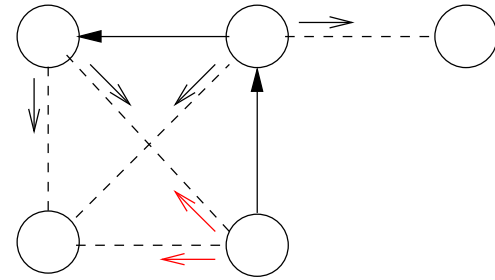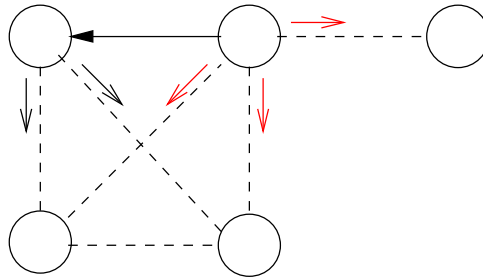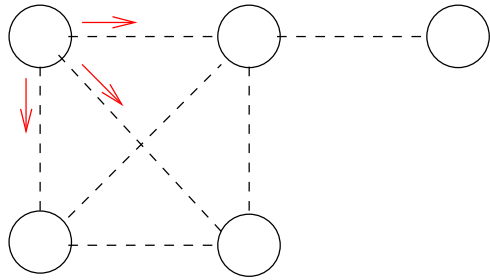- ▶ When a noninitiator receives a message for the first time, it makes the sender its *parent*.

  Then it sends a message to all neighbors except its parent.

- ▶ When a noninitiator has received a message from all neighbors, it sends a message to its parent.

- ▶ When the initiator has received a message from all neighbors, it *decides*.

Message complexity: $2 \cdot E$ messages

decide