Exercise Session 8
TRB, GM, VSC

Problem 1
Can we implement TRB with the eventually perfect failure detector $\diamond P$, if we assume that at least one process can crash?

Problem 2
Show that $P$ is the weakest failure detector for Group Membership.
The failure detector $D$ is weakest for solving some problem $A$ (e.g., Consensus or NBAC) if $D$ provides the smallest amount of information about failures that allows to solve $A$.

Problem 3
In this problem we will change the view-synchronous communication (VSC) abstraction in order to allow joins of new processes. Answer to the following questions:

1. Are the properties of VSC (as given in the class) suitable to accommodate the joins of new processes. Why / Why not?

2. Change the properties of VSC, so that they allow for implementations that support the joins of new processes. [Hint: focus on the properties of group membership]

3. Sketch the changes we need to perform on the Consensus-based (Algorithm II) implementation of VSC in order to support joins.