apl. Prof. Dr. Thomas Noll

Christina Jansen, Christoph Matheja

## **General Remarks**

- Please hand in your solutions in groups of 3. Either hand in your solutions at the beginning of the exercise class or put them into the box at the chair.
- If you have questions regarding the exercises and/or lecture, feel free to write us an email or visit us at our office.

## Exercise 1 (Interprocedural Interval Analysis):

(1 Points)

Specify the interprocedural dataflow system S for interval analysis.

## Exercise 2 (Fixpoint vs. MVP vs. MOP Solution):

(6 Points)

Let S be an (interprocedural) data flow system. Prove or disprove:

- $mop(S) \sqsubseteq mvp(S)$
- $mvp(S) \sqsubseteq mop(S)$
- $mop(S) \sqsubseteq fix(S)$
- $fix(S) \sqsubseteq mop(S)$
- $mvp(S) \sqsubseteq fix(S)$
- $fix(S) \sqsubseteq mvp(S)$