

Development of Safety-Critical Embedded Systems WS 2012/2013

Exercise Sheet 4

Please hand in the solutions to the theoretical exercises until the beginning of the next lecture, Fri. 2012-11-30, 10:00. Please write your name as well as the number of your tutorial group and/or the date/time slot on the first sheet of your solution.

Exercise 4.1: Rule Of Sign Analysis (Points: 4 + 3 + 3 (Bonus))

1. Perform the fixed point iteration on page 17 (from this week's slides on static program analysis). Explicitly write down each iteration step.
2. Define abstract operations for a rule-of-sign analysis (see pages 23 and 24). Give an evaluation table for the (abstract) subtraction ($-$) and (abstract) multiplication ($*$).

Note: All points on this exercise sheet are bonus points. I.e., when computing the overall number of points that were achievable (of which you need 50% to be allowed to take the final exam) this exercise sheet contributes 0 points. When computing your overall number of points at the end of the semester, each point from this exercise sheet (that you score) contributes one point.