

CAP - Exercise: abstract interpretation (ch9, 2nd sheet)

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Jan 2016

EXERCISE ► **Exam CAP 2015-16**

We study here the abstract domain corresponding to parity of integers : an integer is either even (“pair” in french) or odd (“impair”). We call **Parity** this abstract domain.

1. What are α and γ ?
2. Draw the (hasse diagram of the) lattice of elements the abstract domain : represent all points of this domain, as well as the partial order.
3. Define the abstract function $+\sharp$.
4. Write an example of a Mu program where the analysis using the parity abstract domain can help showing that you do not run into an error (you can add subtraction, multiplication and division to the language).