

Exercise No. 3
Algorithms and Methods for Distributed Storage
Winter 2008/2009

Exercise 5 *RAID*

Let p be the failure probability of a hard disk. Calculate the failure probability of the following RAID systems:

- RAID 0 with 2 hard disks
- RAID 1 with 2 hard disks
- RAID 3 with 4 hard disks
- RAID 5 with 4 hard disks
- RAID 6 with 5 hard disks
- RAID 0+1 with 4 hard disks
- RAID 10 with 4 hard disks

Exercise 6 *Polynomials over Galois fields*

Consider $\text{GF}(4)$ based on the irreducible polynomial $x^4 + x + 1$. Compute the addition, multiplication and the logarithm table.