Mathematics 331 – Homework #6

due Monday, April 4 at the beginning of class

Reading: Sections 4.10, 5.1

Warmup questions (don't hand in): (1) 4–4, (2) 5–9,
(3) Show that for any value of k, there is an exact covering system with moduli $b_i = 2^i$, $i = 1, \ldots, k-1$ and $b_k = 2^{k-1}$. (Hint: construct the a_i by induction on k).

Homework (due April 4). The problems are all taken from the text:

Exact Covering Systems: 4–22, 4–27

Lagrange Inversion Formula: 5–1, 5–3, 5–4a, 5–5abc