Homework 10A

This is a voluntary homework. Solving it, you can gain extra points to the exam. Hand in before 4 Dec 9:15 (either on my desk in the classroom or send to my e-mail). You are eligible for getting points only if you hand in on time and only if it is solved (more or less) correctly.

Definition. A *complemented lattice* is a bounded lattice, where every element has a complement.

Problem. For every $n \in \mathbb{N}$, denote by $D_n = \{i \mid i \mid n\}$ the set of all divisors of n. Find all n such that $(D_n, \gcd, \mathrm{lcm})$ is a complemented lattice.