

Exercise #6

(範圍: Boolean Algebra, Rings)

1. Let $(K, \cdot, +)$ be a Boolean algebra. A proof of $a \cdot (a+b) = a$ for every $a, b \in K$ was given on page 65 of lecture notes. Please prove $a + (a \cdot b) = a$ for every $a, b \in K$ by the principle of duality. (10%)
2. P. 741: 4. (20%)
3. Prove Theorem 14.5 on page 681 of Grimaldi's book. (20%)
4. P. 678: 2 (only for (b) and (c)). (10%)
5. P. 678: 8. (30%)
6. P. 684: 4. (10%)