

Homework 3

188 200 Discrete Mathematics and Linear Algebra

Due: — Friday : July 24, 2009: All homework will be collected at 6:00pm. Any homeworks submitted after that are late homeworks.

Note:

1. All homework must be submitted to the submission box.
2. Submitting homework by email is no longer allowed.

Mathematical Induction

Section 4.2: 4, 10, 13, 23

Problem 1: Use regular mathematical induction to show that any postage of at least 4 baht can be obtained by using 2-baht coins and 5-baht coins (see example 9 in Lecture 6).

Section 4.3 : 9, 17, 18, 22

Section 4.4 : 3

Problem 2: Use strong mathematical induction to prove Problem 1.

Counting, Permutation, Combination and Probability Theory

Section 6.1 : 11

Section 6.2 : 5, 10, 15, 20

Section 6.3 : 5, 10, 15, 24

Section 6.4 : 4, 7, 16

Section 6.5 : 4, 12

Section 6.6 :

Problem 3: Use pascal formula to compute $\binom{7}{3}$.

Section 6.7 : 5

Section 6.8 : 5, 18, 22

Section 6.9 : 5, 20, 28

Note: If you are using the second edition of Epp textbook, there are no section 6.8 and 6.9. They can be downloaded from the class website.