## อภินันทนาการ

113629685

## IDEMPOTENCY OF LINEAR COMBINATIONS OF COMMUTING and antions of three tripotent matrices

URAILUK SINGTHONG

A Thesis Submitted to the Graduate School of Naresuan University
in Partial Fulfillment of the Requirements for the
Master of Science Degree in Mathematics
May 2006
Copyright 2006 by Naresuan University

This thesis entitled "Idempotency of Linear Combinations of Commuting Three Tripotent Matrices" submitted by Urailuk Singthong in partial fulfillment of the requirements for the Master of Science Degree in Mathematics is hereby approved.

W. Wamiohapichat
(Assoc.Prof.Wiwat Wanicharpichat, M.Ed.)
Major Adviser
Somyot Plubtvong
(Assoc.Prof.Somyot Plubtieng, Ph.D.)
Adviser
(Hansuk Tansee, Ph.D.) Adviser
Adviser
Many Siripituledet
(Manoj Siripitukdet, Ph.D.)
Internal Examiner
Suthup Swantasi

(Assist.Prof.Kanungnit Pupatwibul, Ph.D.)

Rupatwoline

(Assoc.Prof.Suthep Suantai, Ph.D.)

External Examiner

Dean of the Graduate School

May 2006

## ACKNOWLEDGEMENT

The first person whom I didn't forget is Assoc. Prof. Wiwat Wanicharpichat. He is the kindest person who help and sacrifice me to give advice about the thesis. He always takes care of me in living, health, and the ways to work the thesis. Everything makes me useful for doing and writing about the thesis. Thanks for the good luck for receiving the good person and good things to help me a lot. I am very thankful to my co-advisers, Assoc. Prof. Dr. Somyot Plubtieng and Dr. Hansuk Tansee, for their many suggestions and constant support during this research. Moreover, I would like to thank Dr. Manoj Siripitukdet and Assoc. Prof. Dr. Suthep Suantai, the internal examiner and external examiner of this thesis.

Besides I would like to thank for all of the teachers who taught me from child to adult. At last it makes me to have knowledge and skill, Prof. Dr. Sujun Jinahyon who gave many things to my life, both in working and studying. He is the good example in living which makes my life to have better value.

Finally, thank you for the love from my parents and brother. They gave me the will power in everything. Thank you for the family which gave me without the reward. All of the person whom I mentioned to are the rewards which made my thesis to be finished thank you very much.

Urailuk Singthong