Acknowledgements

A friend often tells me that I frequently say "thank you." Well, for my part, I always do that sincerely since I find many persons extending their help for me to accomplish a task. Once more let me say my "thank you's," not only to those people who took part in making this research, but to those who did a significant part in making my UP life a fruitful and memorable one as well.

First of all, I give God Almighty, the Heavenly Father, Jesus Christ and the Holy Spirit, all the praise and glory. Without Your Divine providence, I would have not done this wonderful thing. I thank you, Lord, for giving me this twenty meaningful years of existence. Through my successes and failures, my life's ups and downs, You've never forsaken me, even if I didn't make a call. To Mama Mary, for always guiding me with her utmost care.

To my family, who has always been in support in every undertaking I take. I thank my dad and my mom for guiding me to what I am today. I thank my brother and sisters for all the cheer ups that they gave me. To my relatives, who had been my avid supporters all the way. Without you, folks, I won't be here where I am today.

To my Nanay, who provided me the things that I need during the course of my program, especially during this research. I may not be able to pay you in return of all. But I promise that I'll never fail you. To Tito Rene, who had been my overseas source of courage and determination.

To my closest high school buddy, Marlon, without your undying efforts, I won't be here in UP. Thanks for making me a little stronger. Hope to see you soon.

To all my teachers in UP, be in the Department of Mathematics and from other UP units as well, for showing me that they trust the potentials the Good Lord had instilled in me. For all those learning experiences not only acquired in the four corners of the classroom but as well as in real life. I would never forget you all. As an old saying goes like this: "A teacher is like a candle giving light to others by consuming itself," may you be able to light up more lives of more students as you've lighted up mine.

Especially to my thesis adviser, Dr. Jose Ma. Balmaceda, for all the efforts, patience and knowledge that you've shared with me during the course of my research. To Dr. Fidel R. Nemenzo, for exposing me to the beauty of coding theory, as I was conceptualizing the topic of this research; for bringing

me to the Coding theory workshop and for bringing me back the inspiration to pursue on my majors. To Dr. Ricardo CH. Del Rosario, for helping me with the implementation of my research. Those things were priceless. To Ms. Rica DG. Panganiban, for keeping me holding on to the program during those times that I was to give up. Ma'am, I've finally made it! To most of my teachers who brightened up my Math life, to name a few: Dr. Rene P. Felix, Prof. Azucena C. Darvin, Prof. Susana D. Livelo, Dr. Job A. Nable, Dr. Lorna I. Paredes, Dr. Luz R. Nochefranca. Also to Prof. Charmagne M. Feria, Ms. Karen F. Cadiz, Ms. Anna Maria Y. Castelo, Ms. Jaylynn C. Saure, Dr. Danilo M. Yanga. To Sir Dakila Reyes II and Ms. Beatriz Estela M. Tianco, for providing the softwares which I needed with the research.

To my co-Legionaries, especially to Sis. Jenny, for all the patience, understanding, encouragement, support and trust that you've bestowed on me as I was doing this research. To Sis. Dahlia, Sis. Grace who are helping me in my post until now and Sis. Dora, I thank you for all the good times. May our Mother Mary bless our praesidium with more and more years to come. To Fr. Jay, for keeping me holding on in God's service.

To Joan, for the inspiration that made my life a little lighter than what I've expected. To Joanne, Rey and Monse, who were always there to hear my sentiments in those times when I was abysmally down. To Mary Ann and Mary Rose, who never failed me when I needed their company. Thanks for being there and for the moral support. To my blockmates, coursemates, schoolmates and friends: Alex, Altair, Arian, Aris, Arwin, Bianca, Blez, Carmen, Carol, Cherry, Chie, Chris, Czar, Dennis, Edrick, Ellen, Geff, Guye, Janice, Jing, Joanne C., Jobert, Lannie, Laurice, Lesley, Lorie, Louie, Marge, Mark, Mau, Mavic, Michael, Mike, Mirella, Penny, Reyginald, Rochelle, Roger, Rommel, Ronaldo, Roselle, Tina, Tin-tin, Vince, Vincent, Von, and Weng for the smiles and hello's. To the three Math organizations, SUMS UP, UP MC and UP MMC for the warm acceptance. To my Narra co-dormers, especially to my previous and present roommates, Uriel, Joey, Gilbert, Donald, Jose, Arthur and Oliver, for being my rightful brothers, and to my numerous friends there, you've made Narra Residence Hall, literally, my second home. Without all of you, guys, my life in UP would not be this colorful. Hope to see you guys, again in the near future.

To those aforementioned, thank you very much. To those who were unmentioned, action speaks louder than words.

"People will come and people will go. But the only person who

will stay with you till the end will be yourself." - Monse