

Contents

| | |
|--|------------|
| Acknowledgement | iii |
| Abstract | iv |
| 1 Introduction | 1 |
| 2 Preliminaries | 4 |
| 3 The main result | 11 |
| 4 Examples | 24 |
| 5 Towards the congruent number problem over F | 29 |
| Bibliography | 39 |