

# Project GRASP – squares 2

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## 1 Administrative Stuff

### 1.1 Mailing list

Please sign up to the mailing list: <https://groups.google.com/forum/#!forum/project-grasp>.

### 1.2 British Mathematical Olympiad

## 2 Problems

1. Let  $a$  and  $b$  be any positive integers, and let  $p$  be any prime number  $p > 2$ , such that  $p$  divides  $a+b$  and  $p$  divides  $a^2+b^2$ . Show that  $p^2$  divides  $a^2+b^2$ .