

MA1971

Name: _____

Quiz 3

D Term, 2013

Show all work needed to reach your answers.

1. (10 points) Please show that

$$\sum_{j=1}^n j^3 = \left(\frac{n(n+1)}{2} \right)^2$$

2. (10 points) Given that A and B are sets, let $A \cap B$ (A **intersect** B) be the subset of A consisting of those elements of A which are also in B . Using one or more of the axioms, please show that $A \cap B$ exists.