

- 7    (a) Find the sum to infinity of the geometric progression with first three terms  $0.5$ ,  $0.5^3$  and  $0.5^5$ . [3]
- (b) The first two terms in an arithmetic progression are 5 and 9. The last term in the progression is the only term which is greater than 200. Find the sum of all the terms in the progression. [4]