

- 8** **(a)** The first, second and last terms in an arithmetic progression are 56, 53 and -22 respectively. Find the sum of all the terms in the progression. [4]
- (b)** The first, second and third terms of a geometric progression are $2k + 6$, $2k$ and $k + 2$ respectively, where k is a positive constant.
- (i)** Find the value of k . [3]
- (ii)** Find the sum to infinity of the progression. [2]