4 The 1st term of an arithmetic progression is a and the common difference is d, where $d \neq 0$.

   (i) Write down expressions, in terms of a and d, for the 5th term and the 15th term. [1]

The 1st term, the 5th term and the 15th term of the arithmetic progression are the first three terms of a geometric progression.

   (ii) Show that $3a = 8d$. [3]

   (iii) Find the common ratio of the geometric progression. [2]