

- 8 The sum of the first 2 terms of a geometric series G is 360
The sum of the 2nd and 3rd terms of G is 288

The n th term of G is U_n

- (a) Show that $U_n = A\left(\frac{4}{5}\right)^{n-1}$ where A is an integer to be found. (7)
- (b) Explain why G is convergent. (1)
- (c) Hence find the sum to infinity of G (2)
- (d) Find the least number of terms for which the sum is greater than 978 (4)

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Question 8 continued

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(Total for Question 8 is 14 marks)

