2 The sum of the first n terms of an arithmetic series is S_n

Given that $S_n = \sum_{r=1}^{n} (4r + 1)$

(a) show that $S_n = n(3 + 2n)$

(4)

The rth term of this arithmetic series is t_r

Given that $S_{n+3} = S_n + 3t_{15}$

(b) find the value of n.

(4)

Question 2 continued

Question 2 continued

Question 2 continued

(Total for Question 2 is 8 marks)