3 (a) Show that $\sum_{r=1}^{n}(5r-3) = \dfrac{n}{2}(5n-1)$

(3)

(b) Hence, or otherwise, evaluate $\sum_{r=31}^{60}(5r-3)$

(2)

Given that $\sum_{r=1}^{n}(5r-3) = 3783$

(c) find the value of n

(3)

Question 3 continued

(Total for Question 3 is 8 marks)