Topic : Series and Sequences – Sigma notation Artithemtic Sequence/ Sum to infinity

(i) Find the value of $\displaystyle\sum_{r=1}^{20} (3 + 5r)$

(3)

(ii) Given that $\displaystyle\sum_{r=0}^{\infty} \frac{a}{4^r}$ = 16, find the value of the constant a.

(4)

(Total for question = 7 marks)