AQA – Exponentials and logarithms – A2 Mathematics P2

1. June/2021/Paper_7357/2/No.6

Show that the solution of the equation

$$5^x = 3^{x+4}$$

can be written as

$$x = \frac{\ln 81}{\ln 5 - \ln 3}$$

Fully justify your answer.

[4 marks]