



2. Nov/2021/Paper\_9709/22/No.6

(a) By sketching a suitable pair of graphs on the same diagram, show that the equation

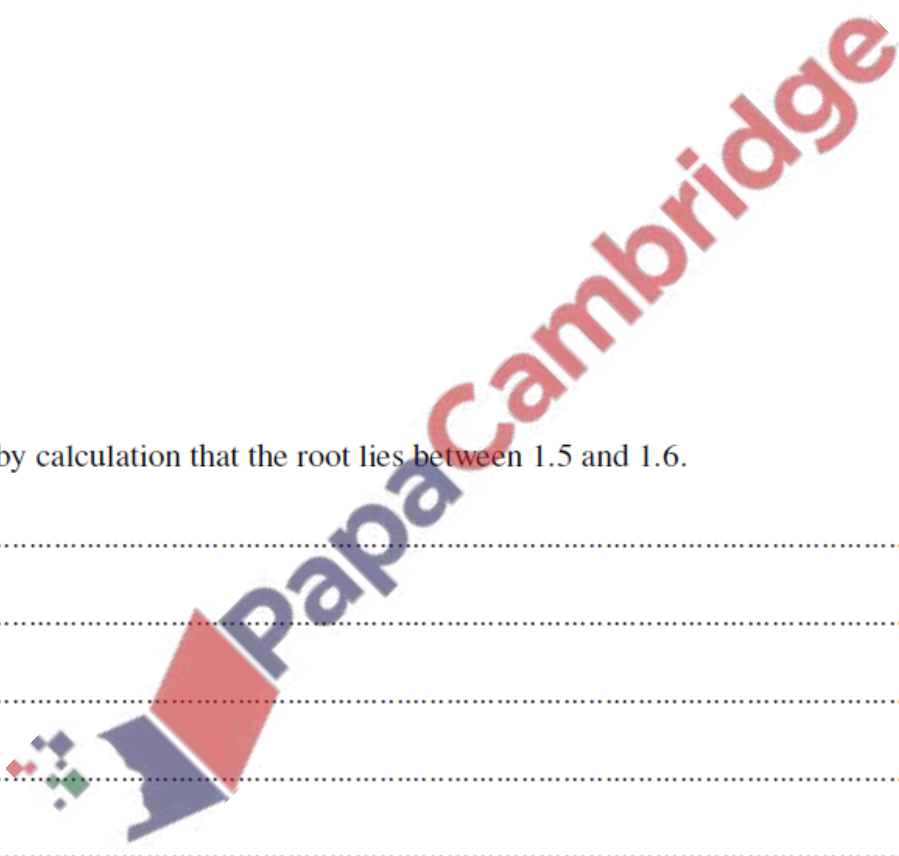
$$\ln x = 2e^{-x}$$

has exactly one root.

[2]

(b) Verify by calculation that the root lies between 1.5 and 1.6.

[2]



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