

A curve has equation $y = \frac{9e^{2x} + 16}{e^x - 1}$.

(a) Show that the x -coordinate of any stationary point on the curve satisfies the equation

$$e^x(3e^x - 8)(3e^x + 2) = 0. \quad [4]$$

[illegible]

(b) Hence show that the curve has only one stationary point and find its exact coordinates. [4]

[illegible]