

The variables x and y satisfy the equation $y = 3^{2a}a^x$, where a is a constant. The graph of $\ln y$ against x is a straight line with gradient 0.239.

- (a) Find the value of a correct to 3 significant figures. [3]

[illegible]

- (b)** Hence find the value of x when $y = 36$. Give your answer correct to 3 significant figures. [2]

[illegible]