5 **(a)** The graph of $y = 2^x$ can be transformed to the graph of $y = 2^{x+4}$ **either** by a translation **or** by a stretch.

    (i) Give full details of the translation. [2]

    (ii) Give full details of the stretch. [2]

(b) **In this question you must show detailed reasoning.**

    Solve the equation $\log_2(8x) = 1 - \log_2(1-x)$. [4]