7 **(a)** **(i)** Write down the set of values of x for which $\lg(5x-3)$ exists. [1]

(ii) Solve the equation $\lg(5x-3)=1$. [1]

(b) It is given that $\log_y x = 4+\frac{1}{2}\log_y 64+\log_y 162$, where $y>0$. Find an expression for y in terms of x. Simplify your answer. [5]