6 It is known that $y = A \times 10^{bx^2}$, where A and b are constants. When $\lg y$ is plotted against x^2, a straight line passing through the points (3.63, 5.25) and (4.83, 6.88) is obtained.

(a) Find the value of A and of b. [4]

Using your values of A and b, find

(b) the value of y when $x = 2$, [2]

(c) the positive value of x when $y = 4$. [2]

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