7 **(a)** Use logarithms to solve the following equation, giving your answer correct to 1 decimal place.

$$5^{x-2} = 3 \times 2^{2x+3}$$ [4]

(b) Solve the equation $\log_3(y^2 + 11) - 2 = \log_3(y - 1)$. [5]

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