1 **(a)** Express $\left(\frac{x\sqrt{x}}{x^3}\right)^2$ in the form x^a where a is a constant to be determined. **[2]**

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

Show that $\frac{\sqrt{20}-2}{\sqrt{5}+1}$ can be written as $3-\sqrt{5}$. **[3]**