5 A curve has parametric equations $x = \tan\theta$, $y = \sec 2\theta$.

(a) Determine the values of θ, in the range $0° \leqslant \theta \leqslant 180°$, at the points where the curve meets the line $y = 2$. **[4]**

(b) (i) Show that $\sec 2\theta \equiv \dfrac{\sec^2\theta}{2 - \sec^2\theta}$. **[2]**

(ii) Hence find a Cartesian equation of the curve. **[2]**