AS Maths Key Skills Check 10

CM

Name: _____

1. Using the substitution $y = 3^x$, or otherwise, solve the equation $3^{2x} - 3(3^x) + 2 = 0$.	
2. Where do the lines $y = 2x + 3$ and $y = 6x - 2$ intersect?	
3. Use calculus to find the coordinates of the maximum point on the curve with equation $y = \frac{4}{\sqrt{x}} - \frac{2}{x}$. Justify that your point is a maximum using further calculus.	
4. A triangle ABC has $AB = 12$ cm and angle $BAC = 30^o$. Find BC	