HOMEWORK SHEET : **PARAMETRIC EQUATIONS : Tangents and Normals.**

COMPLETION DATE :

1. Find the equation of the normal to the curve $x = t$, $y = 1/t$ at the point on the curve with parameter $t = 2$

   For this question, sketch the curve and show the tangent at t = 2

2. Find the equation of the tangent to the curve $x = t^2$, $y = 4t$ at the point on the curve where the parameter is p.

3. Find the coordinates of the points where the line $y = x - 1$ cuts the curve whose parametric equations are $x = t$ and $y = t^2 - 1$

4. Find the equation of the normal at the point $(2s, \frac{2}{s})$ to the curve whose parametric equations are $x = 2s$ and $y = \frac{2}{s}$