

DATE: _____

Write the equation of the tangent line and normal line for each of the following:

1. $x^{\frac{1}{3}} + y^{\frac{1}{3}} = 3$ at $(8,1)$

2. $x \cos y = 1$ at $\left(2, \frac{\pi}{3}\right)$

3. $x^2 y^2 = 9$ at $(-1,3)$

4. $y^2 - 2x = 4y + 1$ at $(-2,1)$