$$\frac{3y-1}{3} = \frac{-1(x-3)}{9} \quad -x+3$$

$9(3y-1) = 3(-x+3)$

$27y - 9 = -3x + 9$

$27y + 3x - 9 - 9 = 0$

$27y + 3x - 18 = 0$ reduce to the lowest term by dividing through by 3

$9y + x - 6 = 0$ is the equation of the tangent

For the equation of the normal

$m_1 m_2 = -1$

$-\frac{1}{9} m_2 = -1$

$\frac{-m_2}{+} = \frac{-9}{+} \quad \therefore m_2 = 9$

$y_0 - y_1 = m(x - x_1)$

$y - \frac{1}{3} = 9(x-3)$

$\frac{3y-1}{3} = 9(x-3)$

$3y - 1 = 27(x-3)$

$3y - 1 = 27x - 81$

$3y - 1 + 81 - 27x = 0$

$3y - 27x + 80 = 0$ is the equation of the normal