Solve the following Differential Equations:

1) \((x + \tan^{-1} y)dx + \left(\frac{x + y}{1 + y^2}\right)dy = 0\)

2) \(\left(\frac{2x^{5/2} - 3y^{5/3}}{2x^{5/2} y^{5/3}}\right)dx + \left(\frac{3y^{5/3} - 2x^{5/2}}{3y^{5/3} x^{5/2}}\right)dy = 0\)