5. (10 points)

(a) If the graph of

\[ \frac{a}{y} + x^2 + b \ln y = 6 \]

goes through the point (2, 1) for some implicitly defined \( y \), find \( a \).

(b) Suppose \( g(x) = -4x + 9 \) is the equation of the tangent to the curve defined above at the point (2, 1). Find \( b \).