Differentiation - Chain Rule - Exponential & Logarithmic Forms

Find $f'(x)$.

1. $f(x) = e^{4x+1}$

2. $f(x) = e^{2x-3}$

3. $f(x) = e^{\sin x}$

4. $f(x) = e^{\tan x}$

5. $f(x) = e^{\sec^{-1} x}$

6. $f(x) = \ln(2x+1)$

7. $f(x) = \ln\left(x^2 + 1\right)$

8. $f(x) = \ln\left(3x^2 + 1\right)$

9. $f(x) = \ln\left(\sec x\right)$

10. $f(x) = \ln\left(\ln x\right)$