1. (10 points) Where is the curvature of the graph \( y = (x + 1)^2 \) largest?

Hint: \( k = \frac{f''(k)}{(1+f'(x)^2)^{\frac{3}{2}}} \)
2. (5 points) \( f(x) = \ln(3x^2 + \arctan(e^x)) \). What is \( f'(x) \) ?