1. (4 points) Find the equation of the line tangent to $f(x) = x^2 + 2x - 24$ at its negative $x$-intercept.
2. (2 points each) Using Leibniz notation (i.e. \( \frac{dy}{dx}, \frac{dP}{dt}, \) etc.), find derivatives for each of the following functions. (Simplify the answer to part a. You do not have to simplify parts b or c)

DO NOT USE THE CHAIN RULE. THIS QUIZ IS NOT COVERING THE CHAIN RULE!

(a) \( y = \frac{\left(\sqrt[3]{x}\right)^5}{x} \)

(b) \( q = \frac{2\pi}{5} e^3 + r \ln 10 \)

(c) \( s = \frac{t^2 - t + 2}{4t + 3} \)