1. Let $f(x) = \ln(x) - \frac{x^2}{20}$

    (a) Write the equation of the line tangent to the graph of $y = f(x)$ at $x = 5$.

    (b) Find the maximum and minimum values of $f(x)$ on the interval $[1, 12]$.

2. Let $g(x) = 3e^x - 7x$.
    Write the equation of the line tangent to the graph of $y = g(x)$ at its global minimum.