1. (6 points) Evaluate the following indefinite integrals.

(a) \[ \int \left( 10x^4 + \frac{2}{x} - 3\sin x - 15 \right) \, dx \]

(b) \[ \int \frac{2x^3 + x^2 - 3x + 4}{x^2} \, dx \]
(c) \[ \int \frac{\tan x \cos x}{\sin x - \sin^3 x} \, dx \]

2. (4 points) Find a function \( f \) such that \( f''(x) = 12e^{2x} \) and such that \( f(0) = 7 \) and \( f'(0) = 11 \).