

7. Evaluate the following integrals. For definite integrals, a simplified numerical answer must be given. For indefinite integrals, your final answer must be in the variable x . (8 points each)

A. $\int \left(\frac{3}{\sqrt[3]{x}} - 2\sec^2 x - 3^x + 5 \right) dx$

B. $\int_0^{\frac{1}{2}} \frac{1}{1+4x^2} dx$

C. $\int \frac{e^{2x}}{1-3e^{2x}} dx$

D. $\int_1^{e^2} \frac{\sqrt{1+4\ln x}}{x} dx$