1. Find the derivative of $f(x) = 5e^{9x+1}$

2. Find the derivative of $f(x) = e^{x^2-6x-1}$

3. Find the derivative of $f(x) = \sqrt{3x}e^{4x^2-3x}$

4. Find the derivative of $f(x) = e^{\sqrt[5]{x}} - e^{\sqrt[3]{x}}$

5. Find the derivative of $f(x) = \ln \dfrac{\sqrt[8]{x^2-5x}}{x^3}$

6. Find the derivative of $f(x) = \ln \dfrac{\sqrt{x^2 - 10x + 1}}{\sqrt[5]{4x - 2}}$

7. Find the derivative of $f(x) = \ln\left[(7x - x^2)^4 \sqrt[10]{4x + 2}\sqrt[7]{7x - 1}\right]$

8. Find the derivative of $f(x) = \ln \dfrac{\sqrt{x}}{x^5}$

9. Find the derivative of $f(x) = \left(\ln \sqrt[3]{x}\right)e^{8x + 3}$

10. Find the derivative of $f(x) = \ln\left(\sqrt[7]{x^2 - 1}\right)^4$