## CALCULUS <br> Logarithmic differentiation <br> OLD2

0400-1. Using logarithmic differentiation,

$$
\text { differentiate } z=\frac{(2 x-3)^{5}(4 x+5)^{8}}{(x+5)^{7}\left(3 x^{4}-2 x^{2}+7\right)^{9}\left(e^{4 x}\right)}
$$

O400-2. Differentiate $w=x^{-2 x}$.

0400-3. Differentiate $V(s)=\left(1+s^{4}\right)^{-\ln s}$.

