CALCULUS
Logarithmic differentiation
NEW
0400-1. Using logarithmic differentiation, differentiate

$$z = \frac{(3x^2 - 7x + 5)^6(2x^3 - 1)^9}{(x^8 + 1)^2(4 + \cos x)^6}.$$ 

0400-2. Differentiate

$$z = s^{-4s}.$$ 

0400-3. Differentiate

$$S(q) = (4 + q^2)q^2 - \sqrt{2}. $$