
Question:

a) Suppose you know that $f'(x) = (x-1)(x-2)^2(x-3)^3(x-4)^4(x-5)^5$. What are the critical points of f ? Which of them are local extrema, and what kind of local extrema are they?

b) Suppose you know that $g'(x) = x(x-1)^{2/3}(x-2)^{3/5}(x-3)^{4/7}$. What are the critical points of g ? Which of them are local extrema, and what kind of local extrema are they?

Note You are *not* asked to compute f and g explicitly.