

MCS 118 - Finding Extreme Values

Find the maximum and minimum values of each function on the given interval. Then sketch a graph of the function and indicate where the critical points and the endpoints are.

1. $f(x) = x^3 - 3x^2 + 5$ on $[0, 4]$

2. $g(x) = \sqrt{4 - x^2}$ on $[-2, 1]$

3. $h(x) = x^3 - 2x + 4$ on $[-1, 1]$

4. $k(x) = 2x^2 + 8x + 9$ on $[0, 4]$