

ABSOLUTE EXTREMA EXERCISES

For each problem below, identify the coordinates of all absolute extrema on the given domain, and label each as either an absolute maximum or an absolute minimum. Give exact answers in fraction form

1. $f(x) = -x^2 - 2x + 8$, $[-3, 3]$

2. $f(x) = x^2 - 6x + 1$, $[-4, 0]$

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

4. $f(x) = x^3$, $[-2, 2]$

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