University of Bahrain
Department of Mathematics
MATHS101: Calculus I
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Worksheet: Increasing and Decreasing functions

Students' Name: _____

1. Find the intervals where the function is increasing/decreasing and find all local max/min.

   1. $f(x) = x^4 - 2x^2 + 3$

2. $f(x) = x^2 - x - \ln x$

3. $f(x) = \sin^{-1} x$

4. Show that 3 is a critical number for $f(x) = 7 + (x-3)^5$, but f does not have a local extreme at $x = 3$.