Name: _____ Date: _____

Learning Goal 4.1	Using derivative tests for curve sketching.

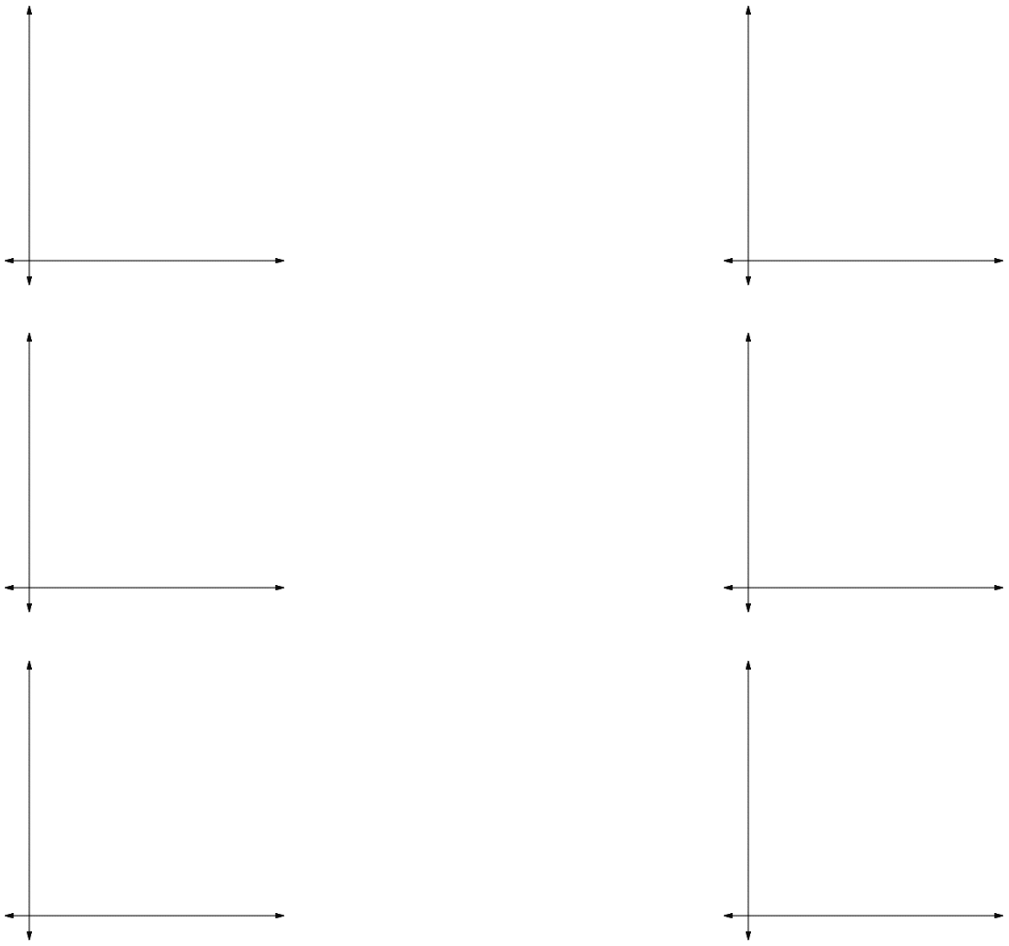
Let's look a little closer at increasing and decreasing. Recall

A function is **increasing** if $f'(x)$

A function is **decreasing** if $f'(x)$

So it follows if $f'(x) = 0$,

Consider the following six cases



Assignment # 1, 2, 11 – 19 Quiz Next Day!

Example Find all critical numbers, the interval which f is increasing or decreasing, and locate any local max or min for $f(x) = x^3 + x^2 - x$.

Example Apply the first derivative test to $f(x) = x^{3/5}(4 - x)$.