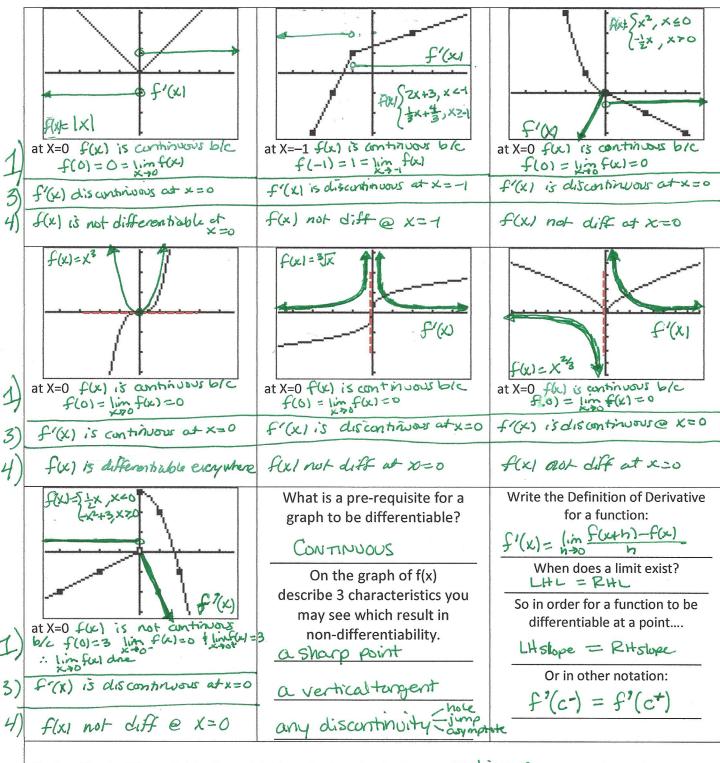
DIFFERENTIABILITY

- ✓1) Is f(x) continuous at the specified x-value? Use the definition of continuity to justify your answer.
- $\sqrt{2}$) Sketch the graph of the derivative function f'(x) on the same axes.
- (3) Is the derivative function continuous for all x? If no, state the x-value where discontinuity occurs.
- 4) The graph of f(x) is differentiable everywhere the derivative function exists. State the x-value where f(x) is not differentiable.



If a function is differentiable at a point, then the function is always continuous at that point.

If a function is continuous at a point, then the function is only sometimes differentiable at that point.