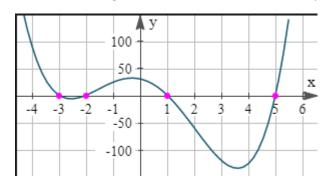
## **Understanding Rate of Change - Graph**

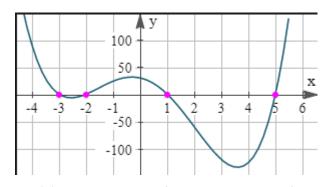
Determine (using interval notation when necessary) the following based on the graph provided:



- (a) an interval for which the function is increasing
- (b) an interval for which the function is decreasing
- (c) an interval for which the rate of change of the graph is increasing
- (d) an interval for which the rate of change of the graph is decreasing
- (e) an interval for which the function is decreasing and the rate of change is increasing
- (f) an interval for which the function is increasing and the rate of change of the graph is increasing
- (g) state the x-value(s) where the instantaneous rate of change is 0
- (h) state an interval for which the slope of the secant will be positive
- (i) state an x-value for which the slope of the tangent will be negative
- (j) state an interval for which the average rate of change will be negative
- (k) state an x-value for which the instantaneous rate of change will be positive
- (I) state an interval for which the average rate of change will be 0

## **Understanding Rate of Change - Graph**

Determine (using interval notation when necessary) the following based on the graph provided:



- (a) an interval for which the function is increasing
- (b) an interval for which the function is decreasing
- (c) an interval for which the rate of change of the graph is increasing
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- (e) an interval for which the function is decreasing and the rate of change is increasing
- (f) an interval for which the function is increasing and the rate of change of the graph is increasing
- (g) state the x-value(s) where the instantaneous rate of change is 0
- (h) state an interval for which the slope of the secant will be positive
- (i) state an x-value for which the slope of the tangent will be negative
- (j) state an interval for which the average rate of change will be negative
- (k) state an x-value for which the instantaneous rate of change will be positive
- (I) state an interval for which the average rate of change will be 0