## CRITICAL POINTS - PART 2

1. In each case, sketch a graph of a continuous function with the given properties.
A. $f^{\prime}(-1)=0$ and $f^{\prime}(3)=0$

B. $g^{\prime}(1)=0$ and $g^{\prime}(4)$ is undefined

C. $h^{\prime}(-2)=0$ and $h^{\prime}(2)=0$ $h^{\prime}(0)$ is undefined
$h^{\prime}(x)$

2. Use Calculus to determine i) critical points, ii) local extrema, iii) inflection points, and iv) intervals where $f(x)$ is concave up or down. Include an accurate graph that illustrates these features. Do this on a separate sheet of paper.
A. $f(x)=x^{4}+2 x^{3}-1$
B. $f(x)=\frac{8 x-16}{x^{2}}$
C. $f(x)=2 x+3 x^{2 / 3}$
