

Sketch the following function  $f(x) = \frac{(x+2)^2}{(x^2+4)}$  if

$$f'(x) = \frac{16-4x^2}{(x^2+4)^2} \quad \text{and} \quad f''(x) = \frac{8x(x^2-12)}{(x^2+4)^3}$$

- Intercepts  $\rightarrow f(x)$
- Asymptotes  $\rightarrow f(x)$
- Intervals of Increase or Decrease  $f'(x)$
- Local Maximum and Minimum values  $CV \rightarrow f(x)$
- Intervals of Concavity  $f''(x)$
- Points of Inflection  $CV \rightarrow f(x)$