The graph of f'' is given below.

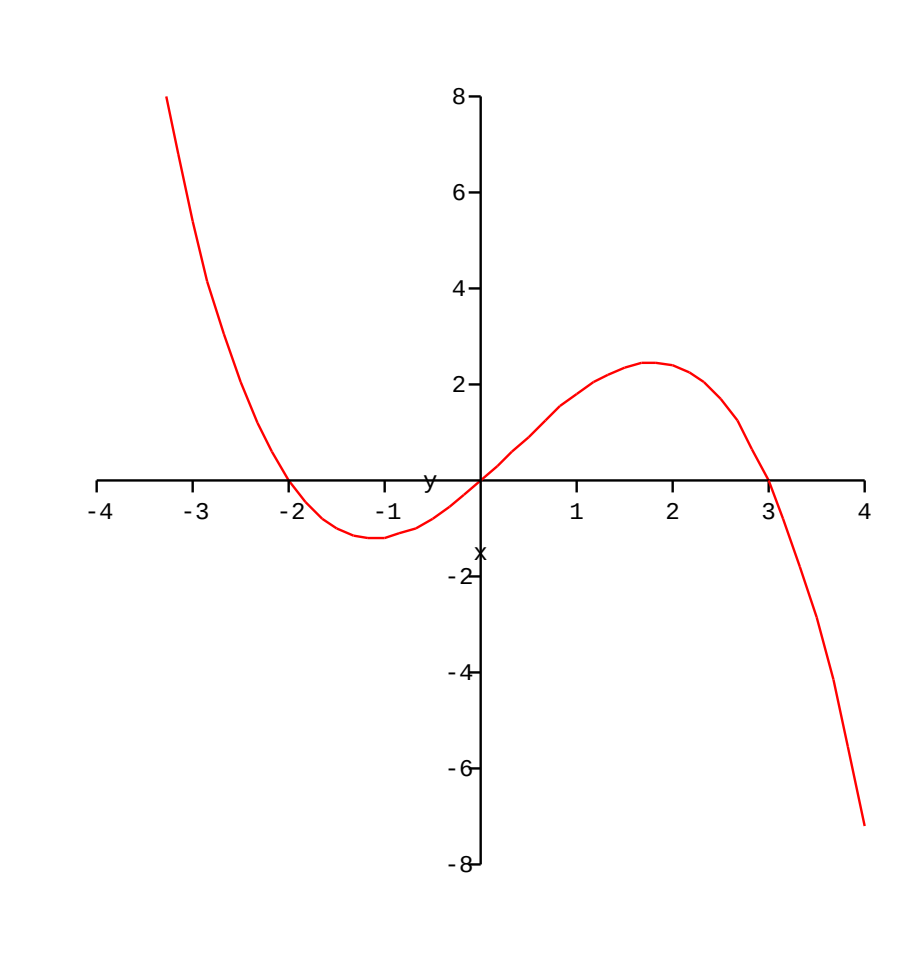
1. Where is f concave up? concave down?

2. Where does f have inflection points?

3. Suppose that $f'(-1) = 0$ and $f'(1) = 0$. If possible, classify $x = -1$ and $x = 1$ as local maxima or local minima of f.

4. Suppose that $f'(0) = 0$. Is f increasing or decreasing at $x = 1$? at $x = -1$?

5. Suppose that $f'(-1) = -2$ and $f(-1) = 2$. Could $f(0) = 3$?
   Hint: Can you determine if f is increasing or decreasing on $[-1, 0]$?



Plot of $y = f''(x)$