

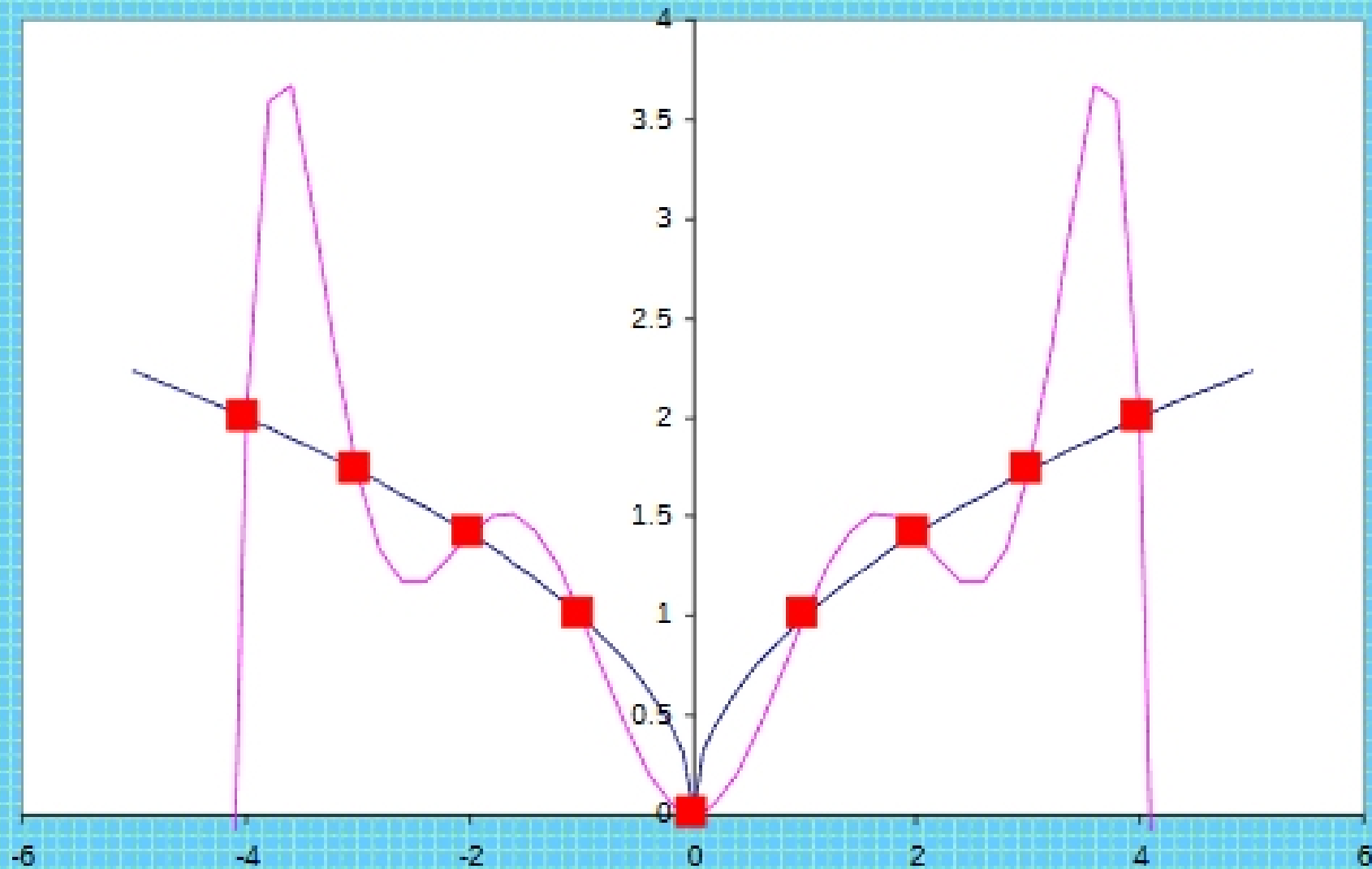
# Splines

There are cases where polynomial interpolation is bad

- overshoot
- oscillations

Example  $f(x) = \ln(\text{abs}(x))$

Interpolation at  $-4, -3, -2, -1, 0, 1, 2, 3, 4$



## Idea behind splines

- use lower order polynomials to connect subsets of data points
- make connections between adjacent splines smooth
- because lower order polynomials, avoid oscillations and overshoots