EX 1 Sketch the graph of \( f(x) = x^3(x^2 - 1) \).

a) domain

b) symmetry

c) x-intercepts

d) First derivative information

e) Second derivative information

f) Asymptotes:
EX 2  Sketch the graph of \( f(x) = \frac{(x-3)^2}{x} \).

EX 3  Sketch the graph of \( f(x) = |x|^3 \).
19 Curve Sketching

- Points of inflection: (-1, -9), (1, -9)
- Symmetry about origin (0, 0)
- Point of intersection at x-axis
- Minima at (-3, -9) and (3, -9)