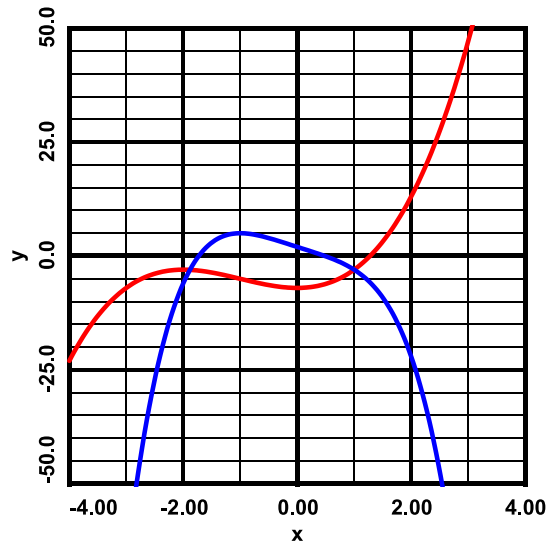


PRE-AP ALGEBRA 2

3B.7 CLASSWORK

- 1) Without using your calculator, *i.e.*, by using the Leading Term Test, identify $f(x) = x^3 + 3x^2 - 7$ and $g(x) = -x^4 - 4x + 2$ on the graph.



Problems 2 through 4 concern the function $f(x) = (x - 2)^2(x - 4)(x - 6)^3$.

- 2) a) State the degree of $y = f(x)$.
b) State the roots (and their multiplicities) of $y = f(x)$.

- 3) Without using a calculator, sketch the character of the graph of $y = f(x)$.

- 4) Check your answer to problem 3 by using your calculator to graph $y = f(x)$ on the axes below.

