## Exploration in Polynomials graphing

Given the polynomial:

$$
P(x)=x^{4}-4 x^{3}+2 x^{2}+4 x-3
$$

1. How many terms are there in $P(x)$ ?
2. What is the degree of the polynomial?
3. What is the sign of the leading coefficient?

You can already determine the end-behavior of the graph.
4. Divide the polynomial by $(x+1)$
5. Divide the polynomial by $(x-1)$
6. Divide the polynomial by $(x-1)$

Plot the polynomial based on the above results, and compare your result with graphic calculator.


