

6.2 – Characteristics of the Equations of Polynomial Functions

Vocabulary:

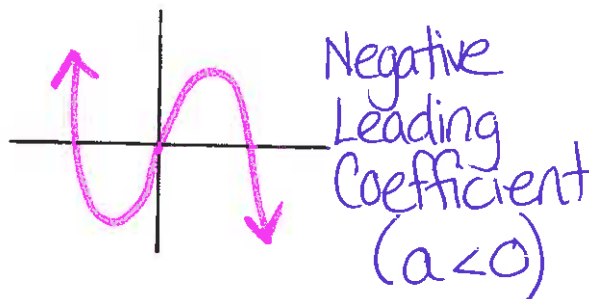
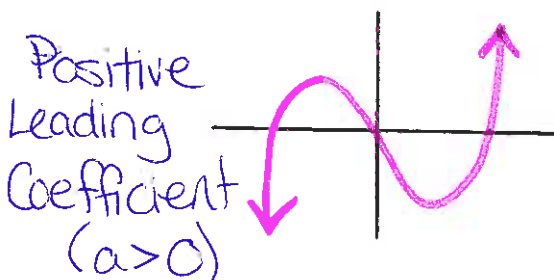
$$f(x) = 2x^3 - 7x^2 + 3x - 2$$

Leading Coefficient (a)
Constant term (no variable)

Standard Form: When the polynomial is arranged in order of decreasing exponents

y – intercept: → where the polynomial crosses the y – axis
 → happens when $x = 0$
 → the constant term in the equation (when in standard form) is always the y intercept

End Behaviour: → determined by the leading coefficient
 → if $a > 0$, then the curve will eventually go up to the right
 → if $a < 0$, then the curve will eventually go down to the right



Example 1: Match each graph with the correct polynomial function.

$g(x) = -x^3 + 4x^2 - 2x - 2$

$j(x) = x^2 - 2x - 2$

$p(x) = x^3 - 2x^2 - x - 2$

$h(x) = -\frac{1}{2}x - 3$

$k(x) = x^2 - 2x + 1$

$q(x) = -2x - 3$

