Sketch Cubic Graphs

<u>Cubic Curve</u>
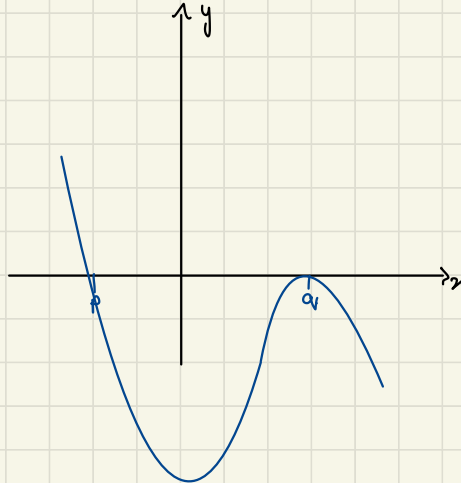
$y = k(x-p)(x-q)(x-r)$

<u>Nature</u>

+ve k

−ve k
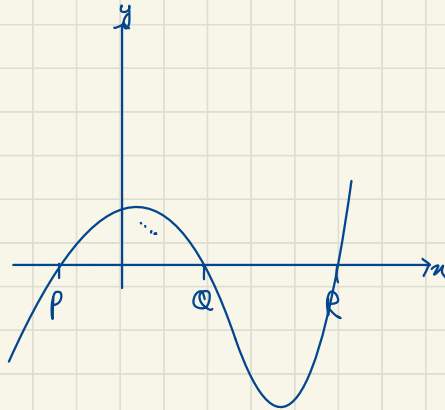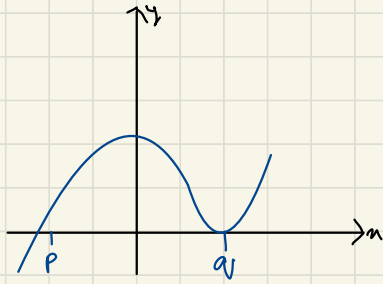
$y = k(x-p)(x-q)^2 \ , \ k > 0$
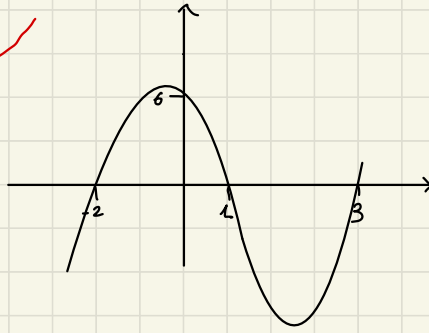

$y = k(x-p)(x-q)^2 \ , \ k < 0$

Examples

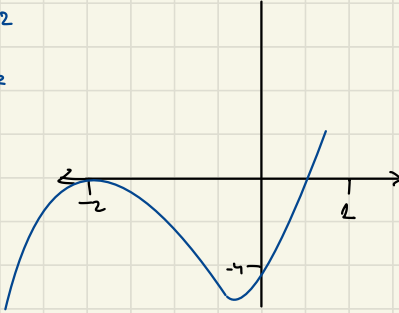(a) $y = (x-1)(x-3)(x+2)$

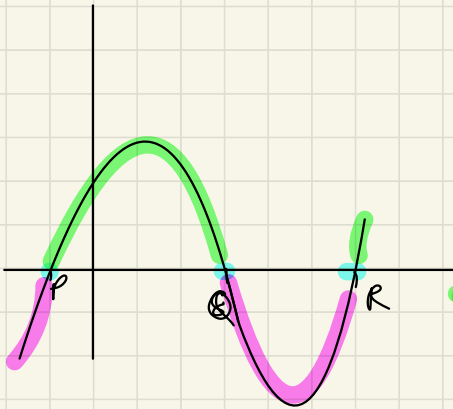$x = -2, x = 1, x = 3$

$y = (-1)(-3)(12) = 6$

(b) $y = (x-1)(x+2)^2$

$x = 1, -2, -2$

$y = -4$

Cubic Identities

= 0 : $x = p, q, r$

> 0

< 0