

* $y = ax^2 + bx + c$

→ y-intercept if $x=0$

→ x-intercept if $y=0$

→ Symm-axis $x = -\frac{b}{2a}$

→ Turning point $(x; y)$
 $\rightarrow x = -\frac{b}{2a}$

y = Take above x-value and substitute into original function

* $y = a(x-p)^2 + q$

→ y-intercept if $x=0$

→ x-intercept if $y=0$

→ Turning point

$(p; q)$
 $\swarrow$ change sign of p in equation
 $\searrow$ use as is

→ Symm-axis $x = p$