Identifying a, h, and k for Library of functions

$$y=\pm a∙f\left(x \pm h \right) \pm k$$

1. Linear Function: $y=\pm a∙(x-h) \pm k$
2. Absolute Value Function: $y=\pm a∙\left|x-h\right| \pm k$
3. Squaring Function: $y=\pm a∙\left( x \pm h \right)^{2} \pm k$
4. Square Root Function: $y=\pm a∙\sqrt{x-h} \pm k$
5. Cube Function: $y=\pm a∙\left(x-h\right)^{3}\pm k$
6. Cube Root Function: $y=\pm a∙\sqrt[3]{x-h} \pm k$
7. Rational (Inverse) Function: $y=\pm a∙\frac{1}{x-h} \pm k$
8. Exponential Function: $y=\pm a∙b^{x-h} \pm k$
9. Logarithmic Function: $y=\pm a∙log\_{b}(x-h) \pm k$

Disclaimer: I did not include the $\pm $ in front of the$ x$. Note that $-x$ reflects the parent function across the $y-axis.$