• \( g(x) = f(x + a) \): The \( g \)-graph is determined by a horizontal shift of the \( f \)-graph \(|a|\) units to the left if \( a > 0 \), or \(|a|\) units to the right if \( a < 0 \).

• \( h(x) = f(x) + a \): The \( h \)-graph is determined by a vertical shift of the \( f \)-graph \(|a|\) units up if \( a > 0 \), or \(|a|\) units down if \( a < 0 \).

• \( k(x) = f(ax) \): The \( k \)-graph is determined by a horizontal compression of the \( f \)-graph if \( a > 1 \), or horizontal stretch of the \( f \)-graph if \( 0 < a < 1 \).

• \( j(x) = af(x) \): The \( j \)-graph is determined by a vertical stretch of the \( f \)-graph if \( a > 1 \), or vertical compression of the \( f \)-graph if \( 0 < a < 1 \).

• \( r(x) = f(-x) \): The \( r \)-graph is determined by reflecting the \( f \)-graph across the \( y \)-axis.

• \( s(x) = -f(x) \): The \( s \)-graph is determined by reflecting the \( f \)-graph across the \( x \)-axis.

Remarks: If \( f(-x) = f(x) \) for all \( x \) in the domain of \( f \), then \( f \) is said to be even and its graph is symmetric with respect to the \( y \)-axis. If \( g(-x) = -g(x) \) for all \( x \) in the domain of \( g \), then \( g \) is said to be odd and its graph is symmetric with respect to the origin.)