

horizontal translation HT Left 7	Vertical translation VT Down 3	HT Right 5 VT Up 9
$y=f(x)$		
$y = x^2$		
$y = x^3$		
$y = x $		
$y=\sqrt{x}$		
$y = \frac{1}{x}$		
$y = 3^x$		
$y = \sin x$		

	Vertical Translation	Horizontal Translation
$f(x) = \cos(x - 3) + 6$		
$f(x) = (x - 7)^3 - 9$		
$y = 9^{x+8} - 12$		
$y = \sqrt{x + 10} + 4$		
$f(x) = \cos(x - 3) + 6$		
$f(x) = (x + 5.7)^2 - 2$		
$y = x - 15$		
$y = \tan(x + 9)$		
$y = f(x - 8) + 4$		