Shifting functions. Class/section _____ Name _____ Date _____

Remember: if y = f(x) is any function, and you wish to make a new function y = g(x) which is f(x) shifted to the right h units and up k units, then the formula for the shifted function is: y-k = f(x-h). Given the following functions: f(x) = 2x + 5; $g(x) = x^2 - 1$; h(x) = 1/(x), find the shifted functions below:

	Problem	Work		answer
1	k(x) = f(x) shifted up 3 and to the right 2	Y = k(x) y-(3) = $f(x-(2))$ y-3=2(x-2) + 5	Therefore, y-3 = 2x-4+5 y=2x+4 k(x) = 2x+4	k(x) = 2x+4
2	t(x) = g(x) shifted up 3 and to the right 2			
3	u(x) = h(x) shifted up 3 and to the right 2			
4	v(x) = f(x) shifted up 3 and to the left 1			
5	w(x) = g(x) shifted up 3 and to the left 1			
6	z(x) = h(x) shifted up 3 and to the left 1			
7	d(x) = f(x) shifted down 2 and to the right 7			
8	e(x) = g(x) shifted down 2 and to the right 7			
9	n(x) = h(x) shifted down 2 and to the right 7			