

Function shifting, mirroring, stretching; Even and Odd functions. Name \_\_\_\_\_

For these problems, $f(x) = x^2+1$ , $g(x) = x^2+x+3$ , $h(x) = 1/(x^2+1)$ , $k(x)=x^3-x$ .			
	Problem	Work	Answer
1	Find the equation of $f(x)$ mirrored about the x axis.		
2	Find the equation of $f(x)$ mirrored about the y axis.		
3	Which of the functions $f,g,h,k$ are EVEN functions?		
4	Which of the functions $f,g,h,k$ are ODD functions?		
5	Is the function $f(x) \cdot k(x)$ even, odd, both, or neither?		
6	Find the equation of $g(x)$ mirrored about the x axis.		
7	Find the equation of $g(x)$ mirrored about the y axis.		
8	Consider the function $q(x) = h(x)$ restricted to the domain $[0, \infty)$ . Find the equation of $q^{-1}(x)$ .		
9	What is the domain of $q(x)$ in #8 above?		
10	What is the range of $q(x)$ in #8 above?		
11	Find the equation of $g(x)$ shifted to the right +2 and up -3.		
12	Find the equation of $k(x)$ shifted to the left 3 and up 2, and then stretched by a factor of 2.		
13	By completing the square, find the equation of $g(x)$ in standard form, that is, $y - k = a(x-h)^2$ .		
14	Find the equation of the function composition $s(x) = g \circ k(x)$		
15	Find the equation of $s(x)$ mirrored about the x axis.		