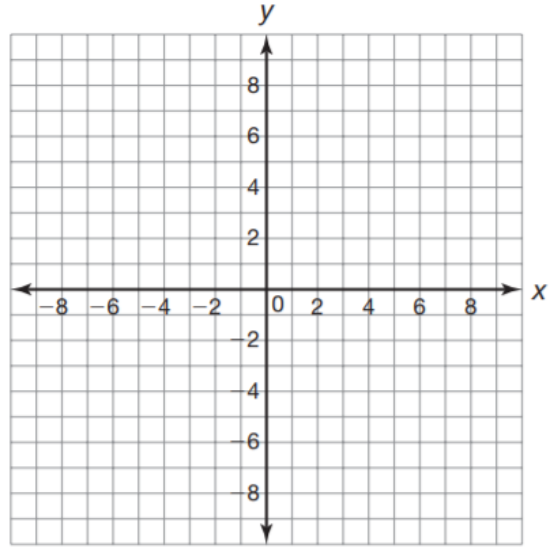I can identify and perform transformations to quadratic functions

1)   Complete the table at the right for $f(x) = x^2$. This is the parent graph for the quadratic function. **ALL** transformations are based off this one.
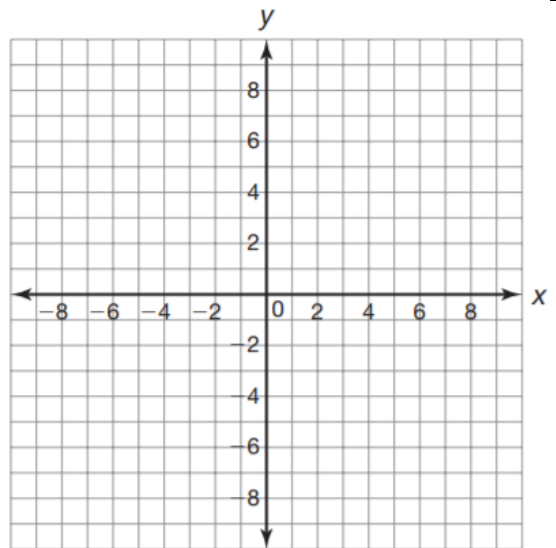
Graph $f(x)$ on the grid at the right.

x	$f(x)$
-3	
-2	
-1	
0	
1	
2	
3	

2) Describe the transformation of $g(x) = x^2 + 4$ from $f(x) = x^2$.

Apply this transformation to each point in the $f(x)$ table to create the new $g(x)$ table. Use the table to graph $g(x)$ on the grid at the right.

x	$g(x)$

3) Describe the transformation of $h(x) = x^2 - 4$ from $f(x) = x^2$.

Apply this transformation to each point in the $f(x)$ table to create the new $h(x)$ table. Use the table to graph $h(x)$ on the grid at the right.

x	$h(x)$

4) Describe the transformation of $r(x)=(x-2)^2$ from $f(x)=x^2$.

x	$r(x)$

Apply this transformation to each point in the $f(x)$ table to create the new $r(x)$ table. Use the table to graph $r(x)$ on the grid at the right.

5) Describe the transformation of $t(x)=(x+2)^2$ from $f(x)=x^2$.

x	$t(x)$

Apply this transformation to each point in the $f(x)$ table to create the new $t(x)$ table. Use the table to graph $t(x)$ on the grid at the right.

6) Describe the transformation of $n(x)=-x^2$ from $f(x)=x^2$.

x	$n(x)$

Apply this transformation to each point in the $f(x)$ table to create the new $n(x)$ table. Use the table to graph $n(x)$ on the grid at the right.