## Combinations of Transformations

1. Given the function $y=f(x)$ and point on the graph $(2,6)$ determine the transformed point, $y=\frac{1}{2} f(x+4)-5$

2. Given the function $y=f(x)$ and point on the graph $(6,-2)$ determine the transformed point, $y=\frac{1}{2} f(2(x+4))-3$

3. Given the function $y=f(x)$ and point on the graph $(8,-1)$ determine the transformed point, $y=3 f(2 x-6)-4$

4. Given the function $y=f(x)$ and point on the graph $(-4,2)$ determine the transformed point, $y=-f(2(x-5))+6$

5. Given the function $y=f(x)$ has been transformed to, $y=3 f(-x+5)-1$, and a point on the transformed function is (-3, 8), what is the corresponding point on $y=f(x)$
6. Given $y=f(x)=\sqrt{x}$, sketch the graph of $y=f(x)$ and the graph of $y=2 f(-x-3)+4$. Write the equation for the transformed function


Summary: Make sure the equation is in simplified form before you begin transforming. Then perform in the order Stretches/Reflections, then Translations unless otherwise stated.

