ALGEBRA RH **HW**

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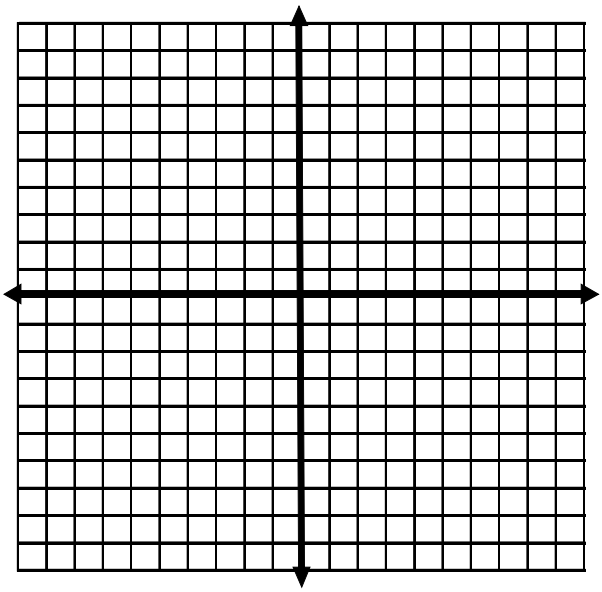
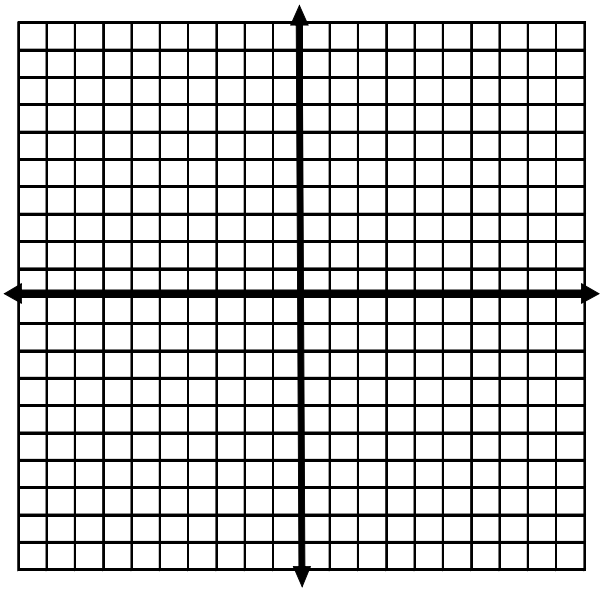
1. Given the function $f(x)$ and $h(x) = f(x+5) + 1$, describe the transformation.

2. On the set of axes, graph both functions *without a table of values*. Use your knowledge of parent functions and transformations. Describe the transformations that take place.

a) $f(x) = x^2$ and $g(x) = (x-2)^2 - 3$

b) $f(x) = |x|$ and $g(x) = -3|x+1|$





3. Using your knowledge of the parent function $f(x) = \sqrt{x}$, state the domain and range of a new function given by $g(x) = \sqrt{x-1} + 5$

4. Given the function $f(x)$ and $g(x) = \frac{1}{5}f(x-3)+2$, describe the transformations.

5. Given the function $f(x) = \sqrt{x}$ and $g(x) = 7\sqrt{x}$, determine if they will have the same domain and range. Explain your answer.

6. Given the function $y = |x+3| - 6$, describe the transformation to the new function $y = |x-5| - 1$