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Transformations Check-in (Not graded)

1. Make a table of values for $f(x)=x^{2}$ and for $g(x)=f(x+3)$. Make sure the vertex is in the middle of your table.

| $x$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $f(x)$ |  |  |  |  |  |


| $x$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $g(x)$ |  |  |  |  |  |

2. a. What transformation(s) happened to turn the first table into the second?

| $x$ | -2 | -1 | 0 | 1 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $f(x)$ | 2 | 1 | 0 | 1 | 2 |


| $x$ | -4 | -3 | -2 | -1 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $g(x)$ | 4 | 2 | 0 | 2 | 4 |

b. Write equations for $f(x)$ and $g(x)$ based on the table.
3. a. What transformation(s) happened to turn the first graph into the second?

b. Write equations for $f(x)$ and $g(x)$ based on the graphs.

