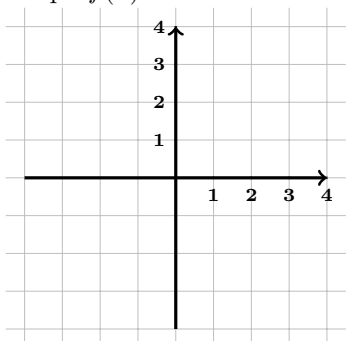


In-Class Assignment 4 (Due: 10/1/21)

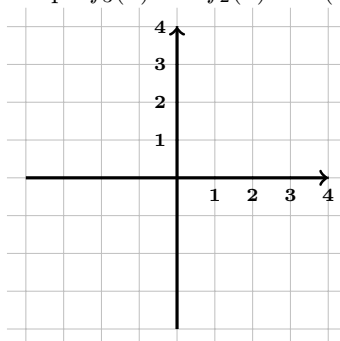
Directions: When instructed, try to solve the following problems. This assignment is due at the end of class.

The graph of $g(x) = -(2(x-1))^2 + 1$ is obtained from the graph of $f(x) = x^2$ using transformations. We can obtain the correct graph by doing one transformation at a time. Try to write a verbal description of the transformation used at each step!

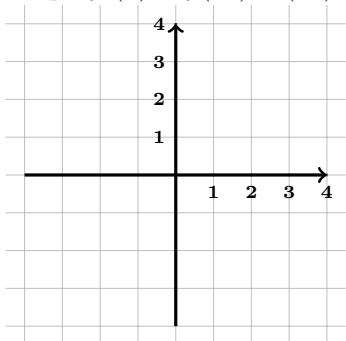
1. Graph $f(x) = x^2$.



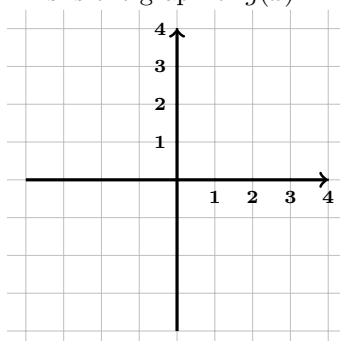
4. Graph $f_3(x) = -f_2(x) = -(2(x-1))^2$.



2. Graph $f_1(x) = f(2x) = (2x)^2$



5. Graph $f_4(x) = f_3(x) + 1 = -(2(x-1))^2 + 1$.
This is the graph of $g(x)$!



3. Graph $f_2(x) = f_1(x-1) = (2(x-1))^2$

