$g(x), f(x), h(x) \rightarrow (y)$

Solve + graph quadratic (x^2)

3 steps

① Find vertex (highest - max
lowest - min)

Vertex: $(5, -6)$

$y = \frac{1}{5}x^2 - 2x - 1$

$x = \frac{-b}{2a}$

$a = \frac{1}{5}$

$b = -2$

$c = -1$

$x = \frac{2}{\frac{2}{5}} = 5$

$2 \div \frac{2}{5} = 2 \cdot \frac{5}{2} = 5$

$y = \frac{1}{5}(5)^2 - 2(5) - 1$

$y = \frac{1}{5} \cdot 25 - 10 - 1$

$y = 5 - 11 = -6$

② Find and graph axis of symm.

Vertex $(5, -6)$

axis of symmetry $\Rightarrow$ $x = 5$

③ Find points

x	y
5	-6
0	-1