10. (10 pts.) The graph of a sine or cosine function is shown below. Write down a formula for the function.

\[
\text{Period} = 8 = \frac{2\pi}{k} \Rightarrow k = \frac{\pi}{4} \\
\text{Shift} = -1
\]

\[
2 \sin \frac{\pi}{4} (x + 1)
\]