

7. [6 points] Define the piecewise function $g(x)$ as below, where a and b are constants.

$$g(x) = \begin{cases} a + b \sin(\pi(x + 2)) & x \leq -2 \\ -3(x + 2) + 4 & x > -2 \end{cases}$$

Find one pair of **exact** values for a and b such that $g(x)$ is differentiable, or write NONE if there are none. You do not need to simplify your answers but be sure your work is clear.

Answer: $a =$ _____ and $b =$ _____