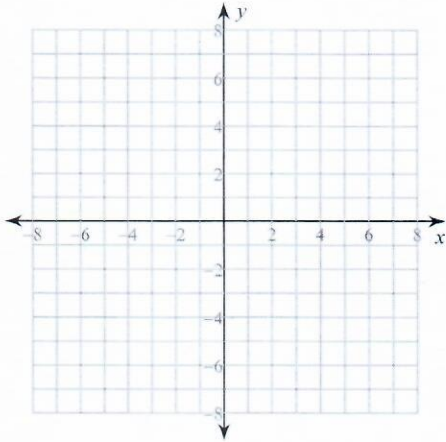


Piecewise Functions

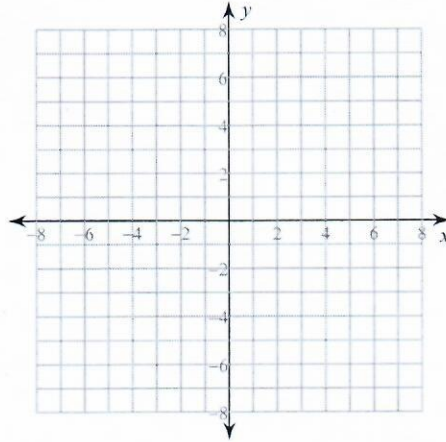
Date _____ Period _____

Sketch the graph of each function.

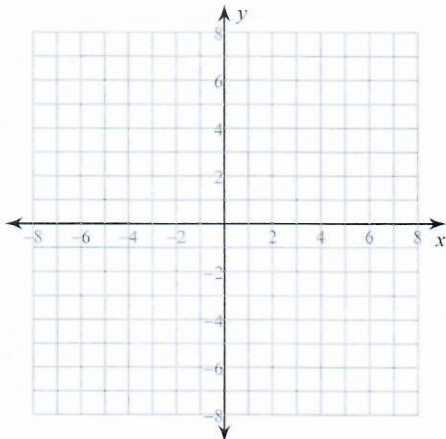
$$1) f(x) = \begin{cases} (x+4)^2, & x < -3 \\ |x-2|, & x \geq -3 \end{cases}$$



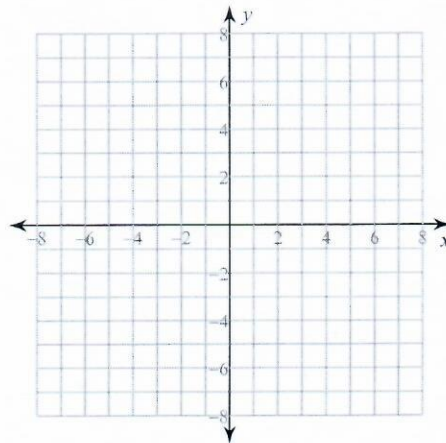
$$2) g(x) = \begin{cases} x, & x \leq 0 \\ -2, & x > 0 \end{cases}$$



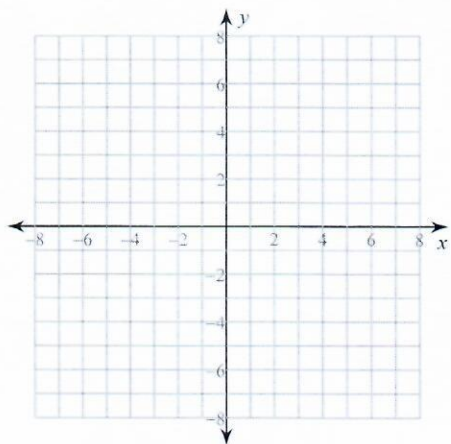
$$3) f(x) = \begin{cases} 4, & x \leq 0 \\ -1, & x > 0 \end{cases}$$



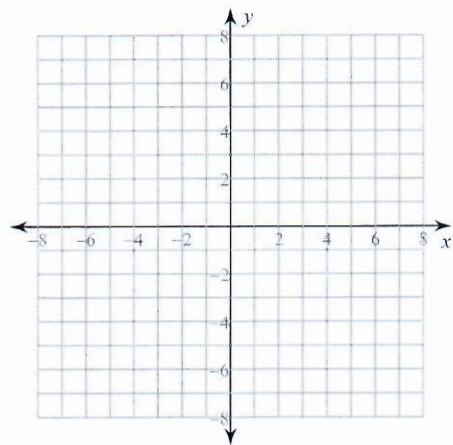
$$4) g(x) = \begin{cases} (x+3)^4, & x < -2 \\ -5, & -2 \leq x < 2 \\ -|x|, & x \geq 2 \end{cases}$$



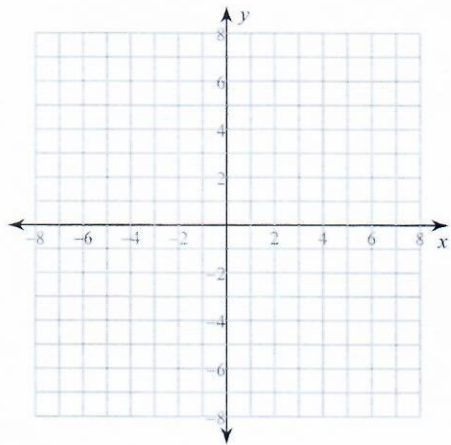
$$5) f(x) = \begin{cases} -2, & x < -4 \\ -x - 2, & -4 \leq x < 1 \\ (x - 2)^2, & x \geq 1 \end{cases}$$



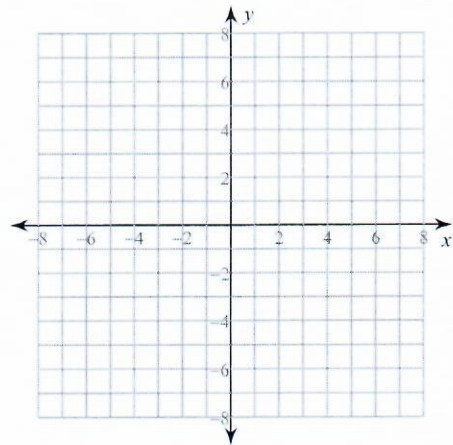
$$6) f(x) = \begin{cases} -2x - 3, & x < -1 \\ x^2 - 1, & x \geq -1 \end{cases}$$



$$7) f(x) = \begin{cases} -2|x|, & x < 0 \\ -1, & x \geq 0 \end{cases}$$

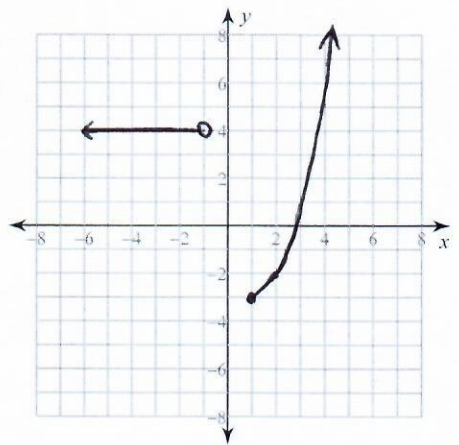


$$8) g(x) = \begin{cases} (x + 4)^3, & x < -3 \\ (x + 2)^3, & x \geq -3 \end{cases}$$



Write the equation for the given peicwise function.

9)



10)

