NOTES OUTLINE Name_____ ID: 1

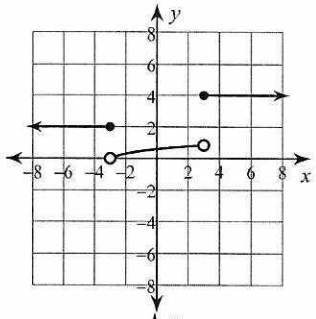
PIECEWISE FUNCTION PRACTICE

Date_____ Period____

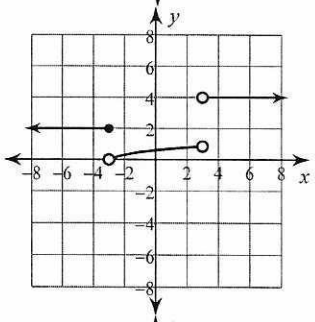
Sketch the graph of each function.

1) $f(x) = \begin{cases} 2, & x \le -3 \\ \log(x+4), & -3 < x \le 3 \\ 4, & x > 3 \end{cases}$

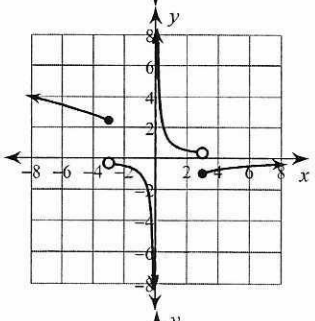
A)



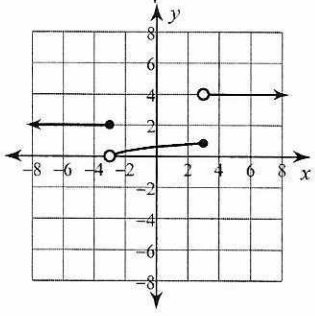
B)



C)

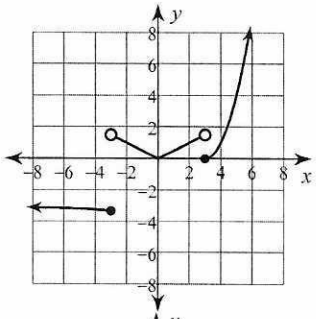


D)

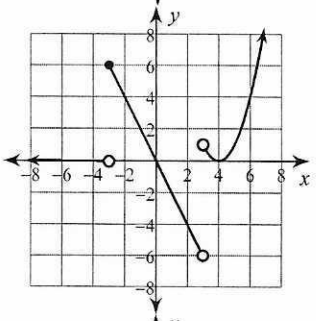


2) $g(x) = \begin{cases} \dfrac{1}{x} - 3, & x \le -3 \\ \dfrac{|x|}{2}, & -3 < x < 3 \\ (x-3)^2, & x \ge 3 \end{cases}$

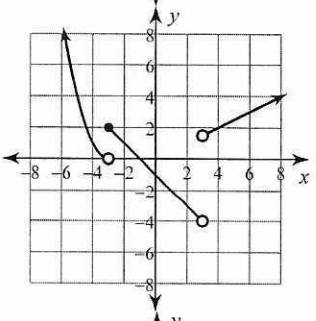
A)



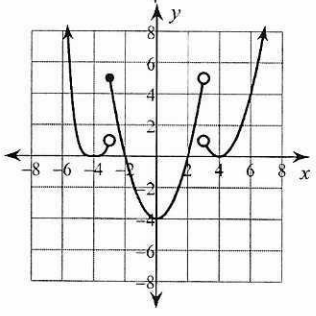
B)



C)

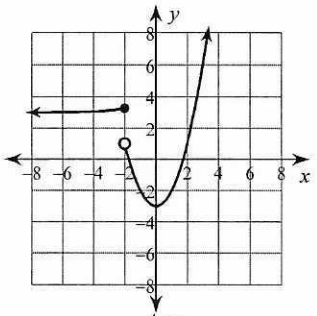


D)

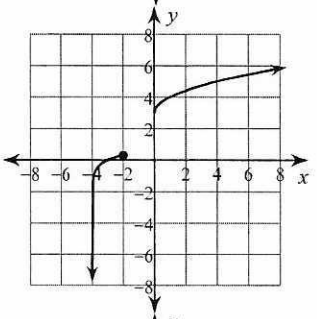


3) $h(x) = \begin{cases} \log(x+4), & x \le -2 \\ 3 + \sqrt{x}, & x > -2 \end{cases}$

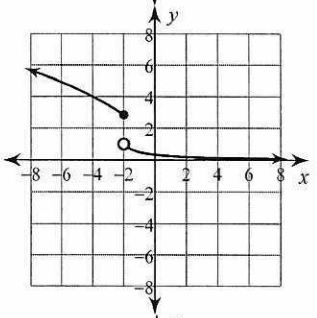
A)



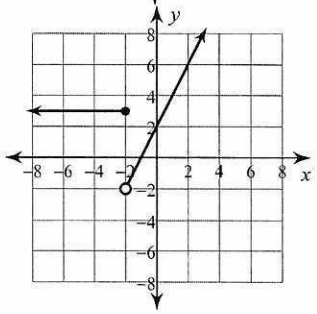
B)



C)

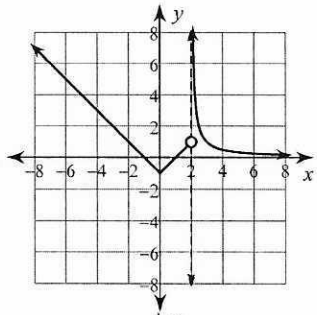


D)

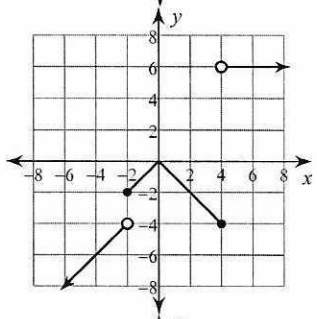


4) $g(x) = \begin{cases} -x - 3, & x \le 0 \\ \log(x+1), & 0 < x \le 4 \\ \dfrac{1}{x} - 3, & x > 4 \end{cases}$

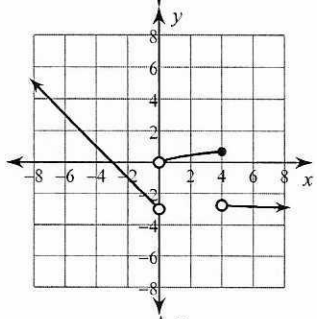
A)



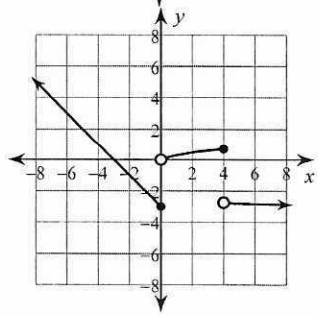
B)



C)

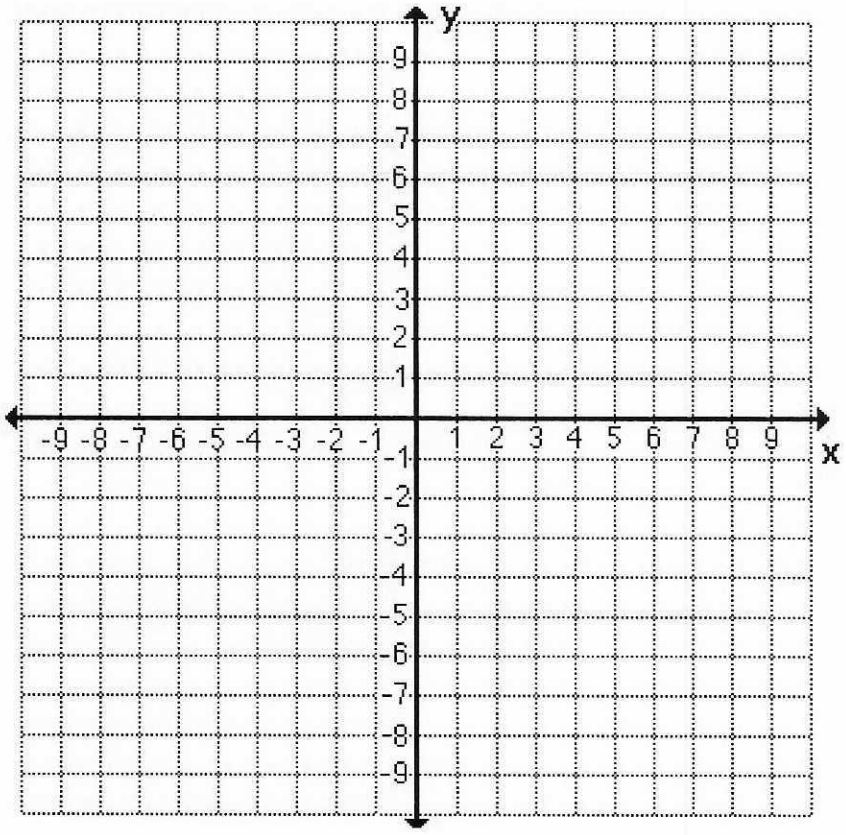


D)



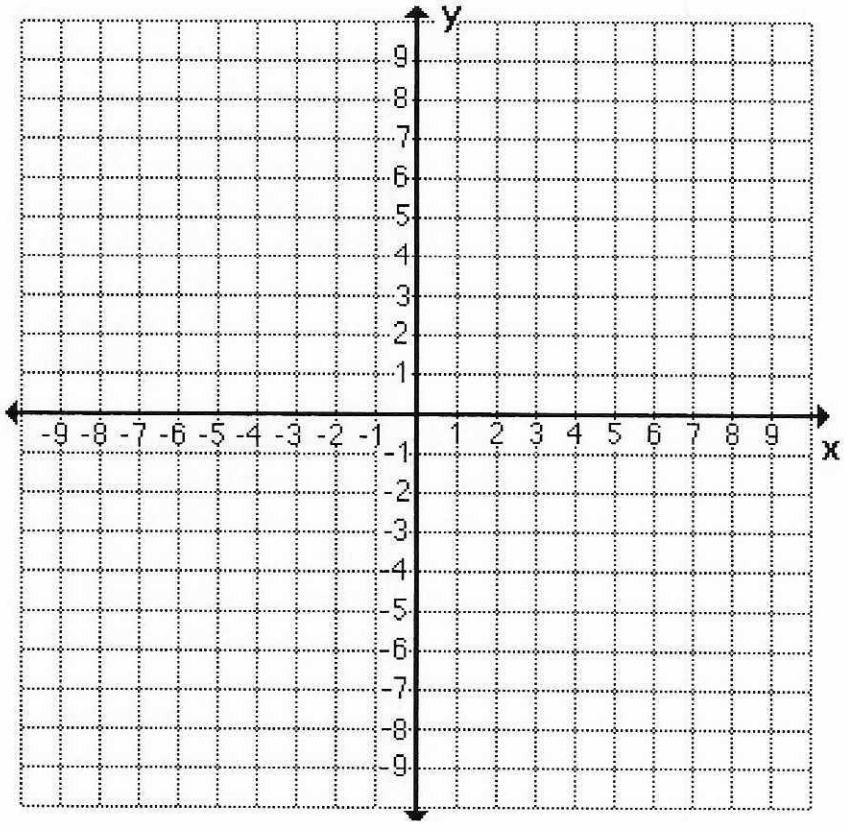
5.

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



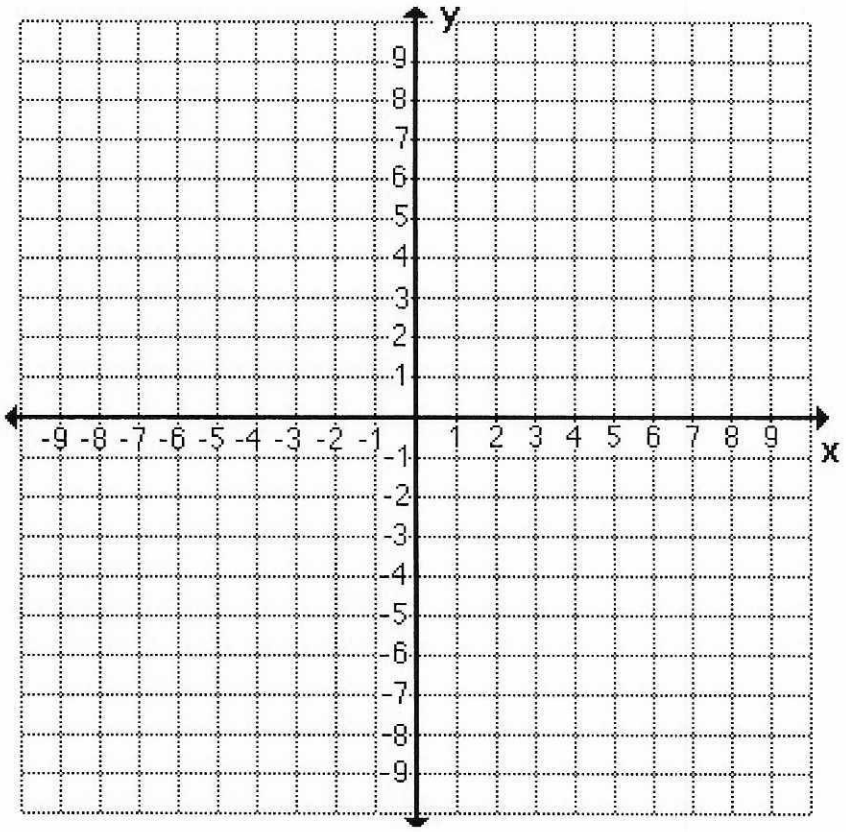
6.

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



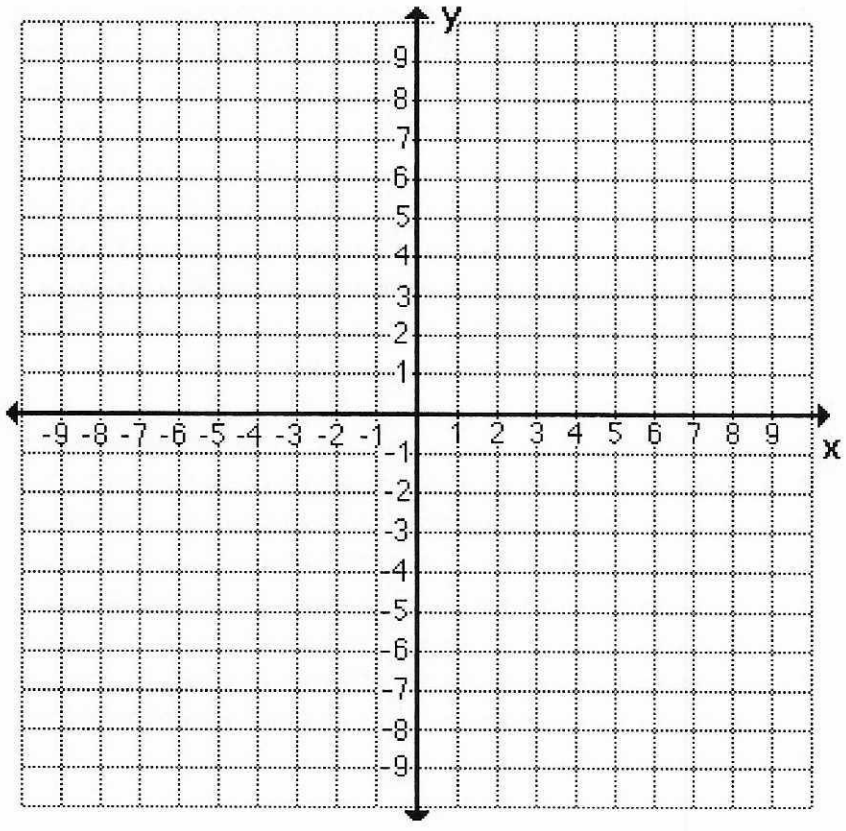
7.

$$f(x)=\begin{cases}(x+3)^3, & x<-2\\ -3+\sqrt{x}, & -2\le x<4\\ (x-4)^2, & x\ge 4\end{cases}$$



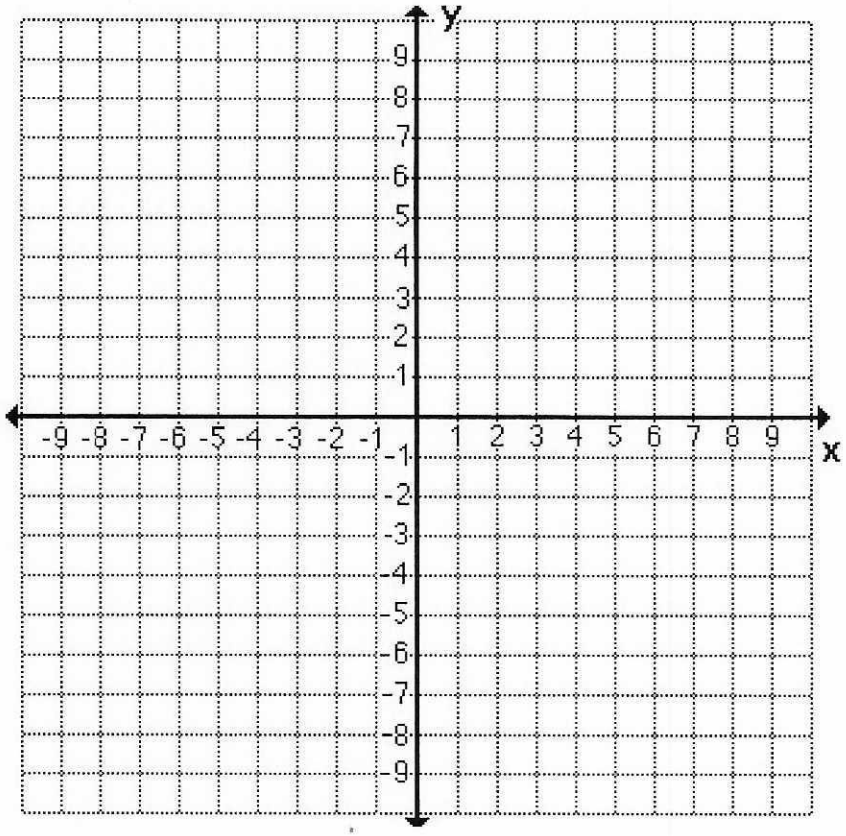
8.

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



9.

$$f(x)=\begin{cases} x+1, & x\le -2 \\ 3, & -2<x<3 \\ -x, & x\ge 3 \end{cases}$$



10.

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