CW Practice – Piecewise Functions

Evaluate the piecewise function for the given values of x.

1. $f(x)=\begin{cases} x+5 & \text{if } x<-2 \\ -4 & \text{if } x\geq -2 \end{cases}$

$f(3)=$ $\quad$ $f(-4)=$ $\quad$ $f(-2)=$

2. $f(x)=\begin{cases} -2x-4 & \text{if } x\leq 2 \\ 4x-9 & \text{if } x>2 \end{cases}$

$f(-4)=$ $\quad$ $f(8)=$ $\quad$ $f(2)=$

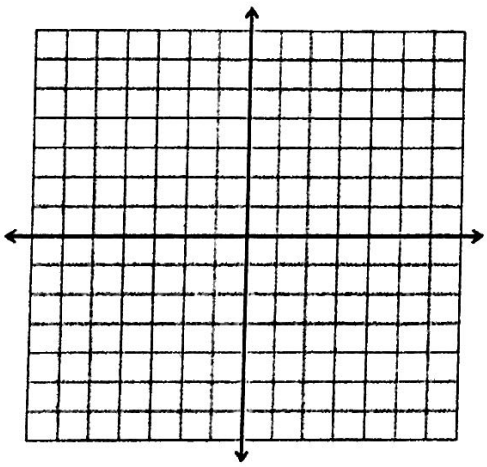
3. $f(x)=\begin{cases} x-1 & \text{if } x\leq -2 \\ 2x-1 & \text{if } -2<x\leq 4 \\ -3x+8 & \text{if } x>4 \end{cases}$

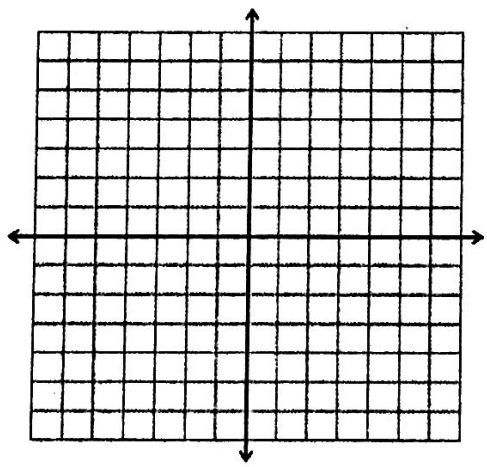
$f(-1)=$ $\quad$ $f(-4)=$ $\quad$ $f(5)=$

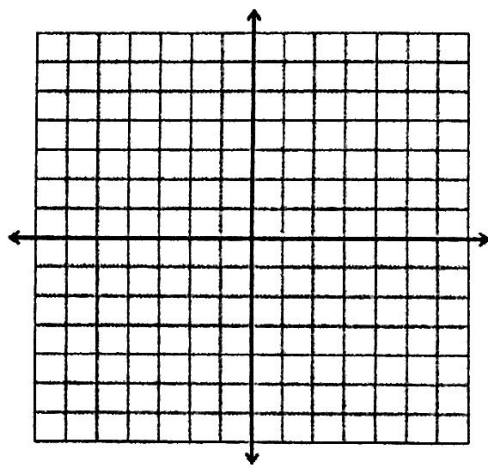
4. $f(x)=\begin{cases} x+3, & \text{if } x\leq 0 \\ 2x, & \text{if } x>0 \end{cases}$

5. $f(x)=\begin{cases} x+1, & \text{if } x<0 \\ -x+1, & \text{if } 0\leq x\leq 2 \\ x-1, & \text{if } x>2 \end{cases}$

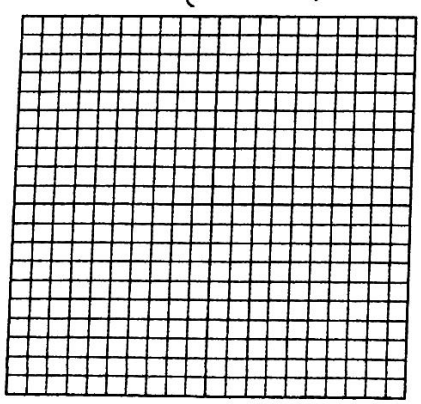
6. $f(x)=\begin{cases} 2, & \text{if } x\leq -3 \\ -1, & \text{if } -3<x<3 \\ 3, & \text{if } x\geq 3 \end{cases}$



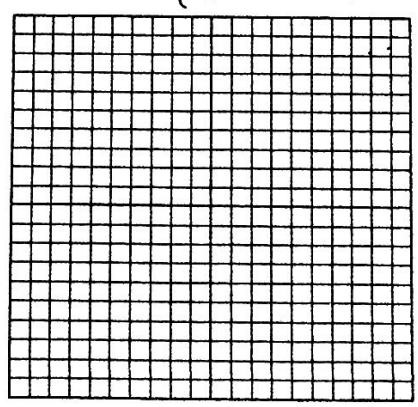




7 $g(x)=\begin{cases} 3x+12, & x\leq -3 \\ |x|, & -3<x<3 \\ -3x+12, & x\geq 3 \end{cases}$



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



Write equations for the piecewise functions whose graphs are shown below. Assume that the units are 1 for every tic marc.

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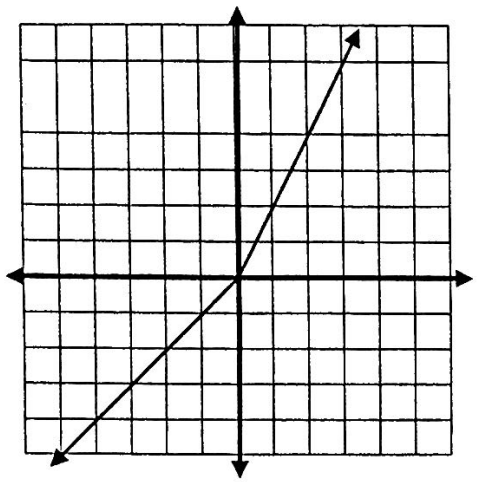

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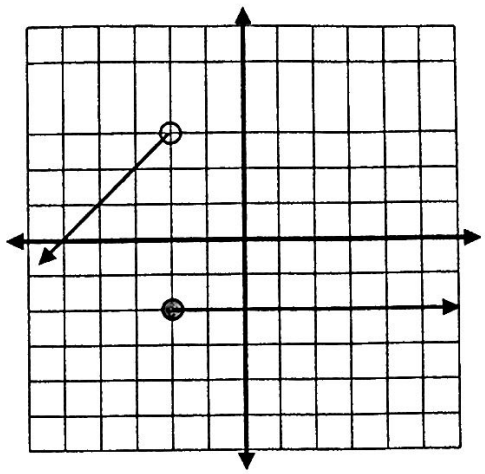

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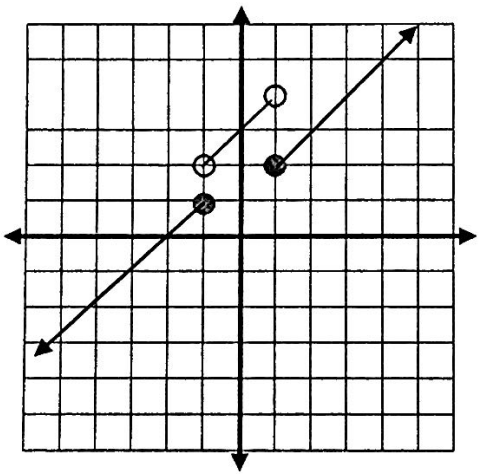

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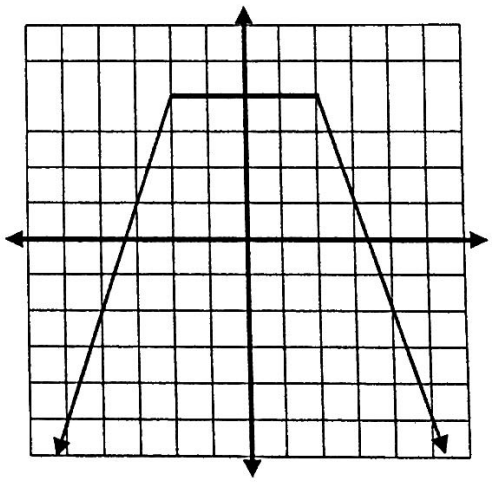

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