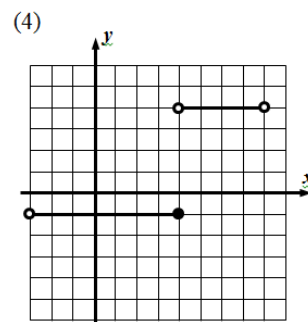
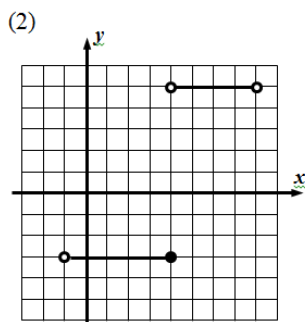
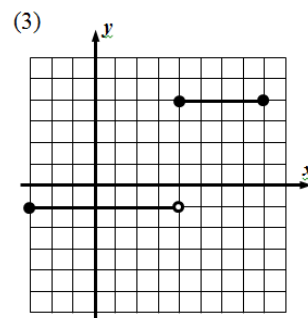
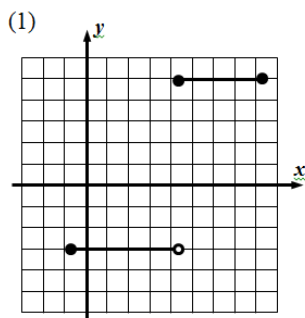


# ALEGRBA RH

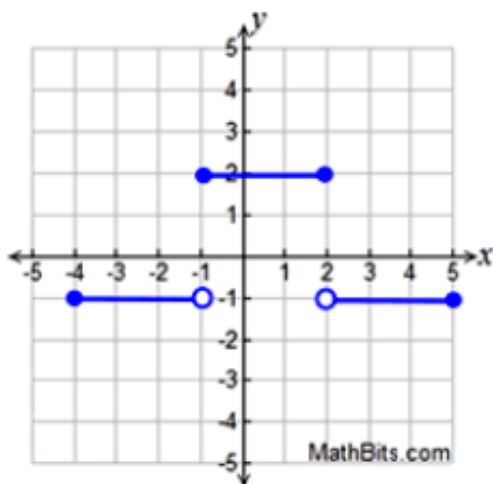
# HW

1. Which of the following is the graph of the function

$$f(x) = \begin{cases} -3 & -1 \leq x < 4 \\ 5 & 4 \leq x \leq 8 \end{cases} ?$$



2. Define the following piecewise function.



3. From the piecewise function in #2, find:

a.  $f(-2.5)$

b.  $f(-1)$

c.  $f(1.9)$

d.  $f(3)$

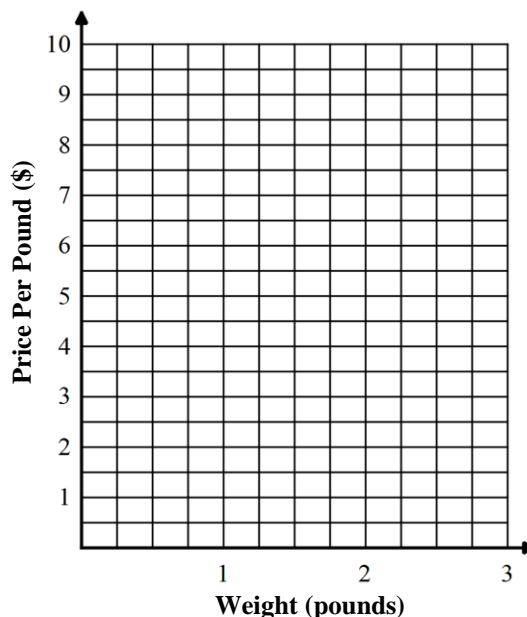
e.  $f(-5)$

4. The per pound price of lobster varies with the weight of the lobster. Generally, the greater the weight of the lobster, the more you pay per pound for it. Cook's Lobster House has a lobster pricing structure given below:

$$p(w) = \begin{cases} \$6.00 & 0 \leq w < 1 \\ \$7.50 & 1 \leq w < 1\frac{1}{2} \\ \$8.25 & 1\frac{1}{2} \leq w < 2 \\ \$9.50 & w \geq 2 \end{cases}$$

where  $w$  is the weight of the lobster, in pounds, and  $p$  is the price per pound for the lobster.

- (a) Graph this function on the axes provided.



- (b) Marty ordered a lobster that weighed in at  $1\frac{3}{4}$  pounds. How much did he pay for his lobster? Show the work that leads to your answer.