

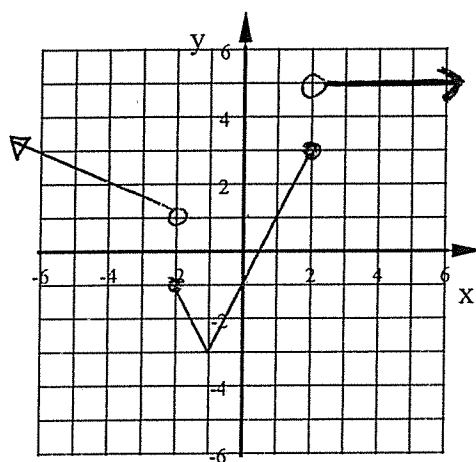
1. Use this function: $f(x) = \begin{cases} 6x - 5 & \text{if } x > 4 \\ -3x^2 + 4x & \text{if } x \leq 4 \end{cases}$

a. Find $f(7)$ b. Find $f(4)$ c. Find $f(-3)$

2. Use this function $f(x) = \begin{cases} -2|x+1| - 7 & \text{if } x \leq 1 \\ 3 & \text{if } 1 < x < 3 \\ 6 - 2x & \text{if } x \geq 3 \end{cases}$

a. Find $f(10)$ b. Find $f(2)$ c. Find $f(-5)$

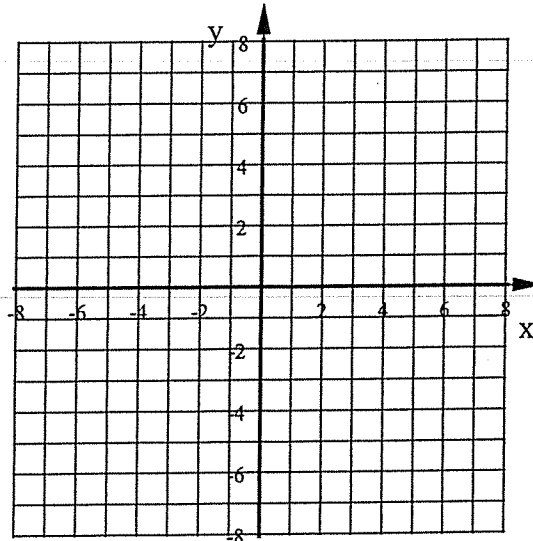
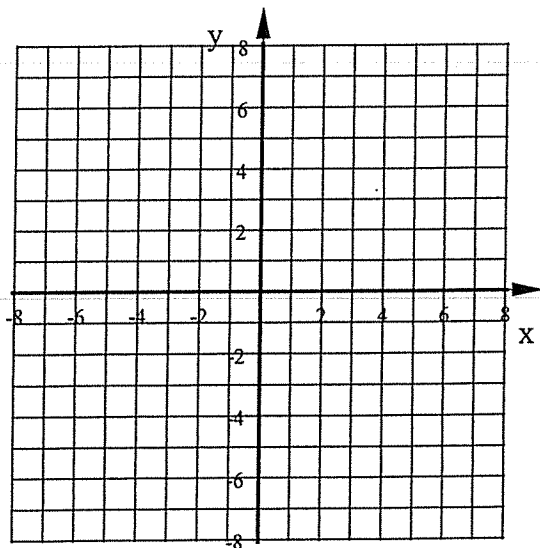
3. Use this graph.

a) find $f(2)$ b) find $f(-4)$ c) find $f(9)$

For 4 to 7, graph each of the following piecewise functions.

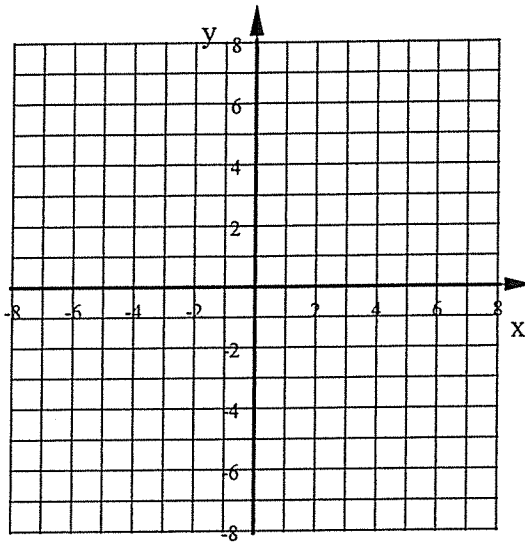
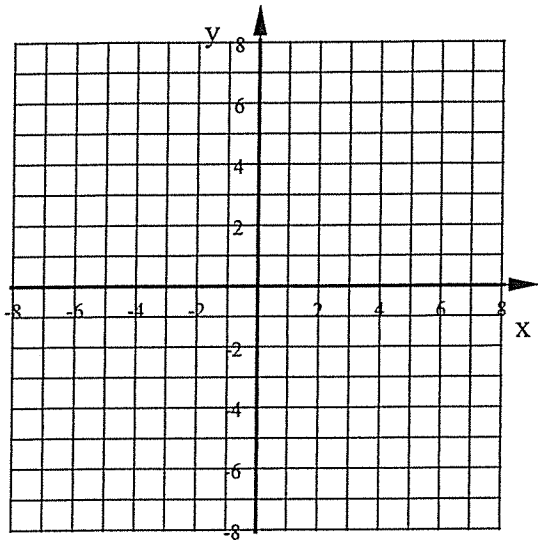
4. $g(x) = \begin{cases} -x + 2 & \text{if } x < -3 \\ x - 2 & \text{if } x \geq -3 \end{cases}$

5. $h(x) = \begin{cases} -3x + 2 & \text{if } x \leq 1 \\ \frac{1}{2}x - 4 & \text{if } x > 1 \end{cases}$



$$6. g(x) = \begin{cases} x+5 & \text{if } x \leq -2 \\ x^2 & \text{if } -2 < x < 2 \\ -\frac{1}{2}x+2 & \text{if } x \geq 2 \end{cases}$$

$$7. h(x) = \begin{cases} 2 & \text{if } x < -4 \\ 3|x+2|-3 & \text{if } -4 \leq x < 2 \\ -3x+12 & \text{if } x \geq 2 \end{cases}$$



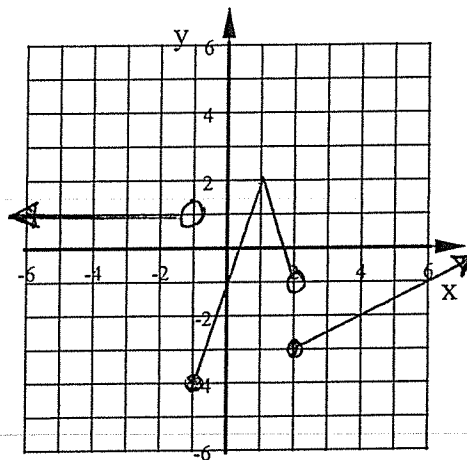
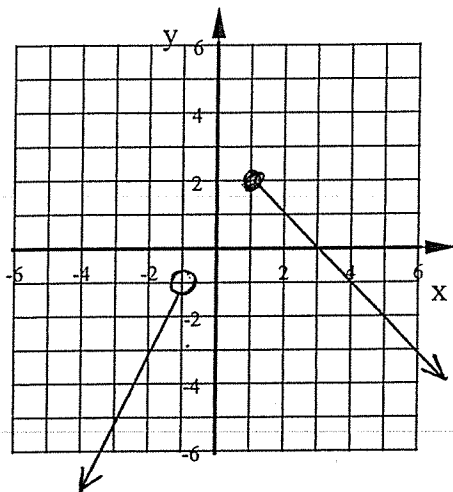
For 8 and 9, write the rule for each piecewise function.

8.

9.

$f(x) =$

$f(x) =$



10. Which of the piecewise functions from problems 4 to 9 are continuous?