

Piecewise and Step Functions
Review WS

Name _____

Evaluate the function for the given value of x .

$$f(x) = \begin{cases} x+5, & \text{if } x \leq 3 \\ 2x-1, & \text{if } x > 3 \end{cases}$$

$$g(x) = \begin{cases} \frac{1}{2}x-4, & \text{if } x \leq -2 \\ 3-2x, & \text{if } x > -2 \end{cases}$$

1. $f(7)$

2. $f(0)$

3. $f(-1)$

4. $f(3)$

5. $h(-4)$

6. $g(-2)$

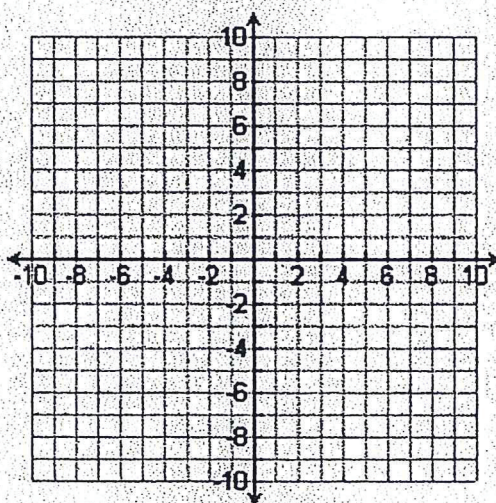
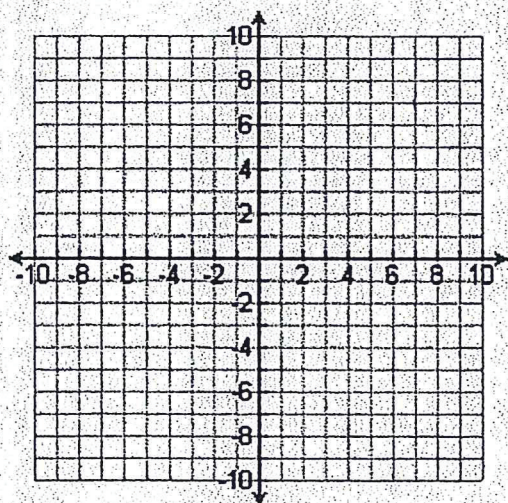
7. $g(-1)$

8. $g(6)$

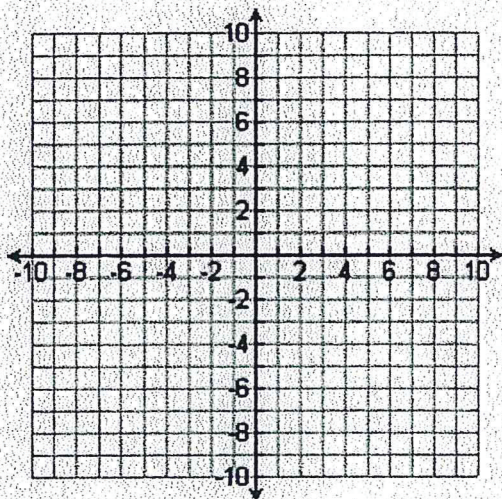
Graph each function.

9. $f(x) = \begin{cases} -2, & \text{if } x < 0 \\ 3, & \text{if } x \geq 0 \end{cases}$

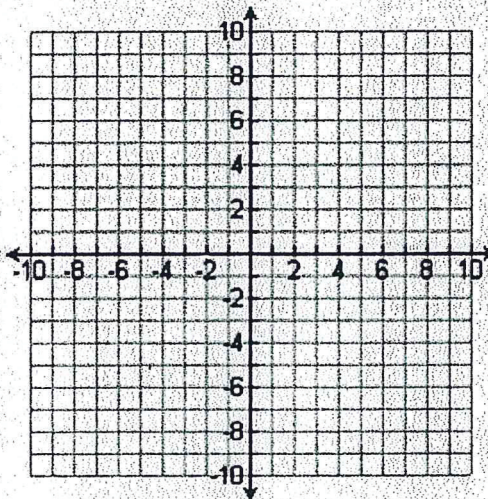
10. $g(x) = \begin{cases} -x+2, & \text{if } x < 2 \\ x-2, & \text{if } x > 2 \end{cases}$



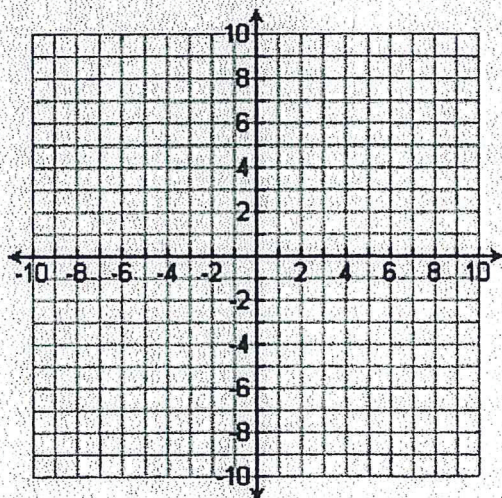
$$11. h(x) = \begin{cases} -3x+2, & \text{if } x \leq 2 \\ \frac{1}{2}x-4, & \text{if } x > 2 \end{cases}$$



$$12. f(x) = \begin{cases} 4, & \text{if } x \leq 1 \\ -2, & \text{if } 1 < x < 3 \\ 3, & \text{if } x \geq 3 \end{cases}$$



$$13. g(x) = \begin{cases} x-4, & \text{if } x \leq 1 \\ 3x, & \text{if } x > 1 \end{cases}$$



$$14. h(x) = \begin{cases} -1, & \text{if } -2 \leq x < 1 \\ -2, & \text{if } 1 \leq x < 3 \\ -3, & \text{if } 3 \leq x < 6 \\ -4, & \text{if } 6 \leq x < 8 \end{cases}$$

