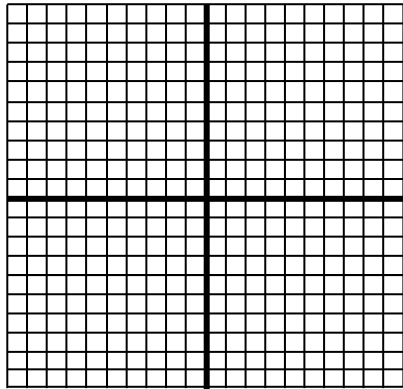
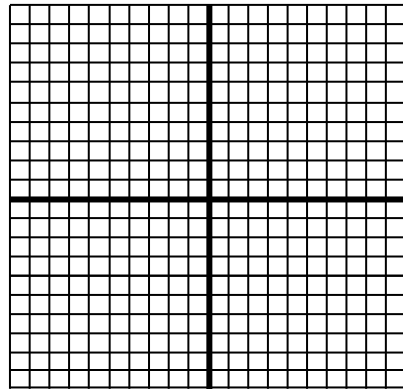


Graph each piecewise function.

$$1. f(x) = \begin{cases} 2x+3 & \text{if } -4 \leq x < 0 \\ 3 & \text{if } 0 \leq x < 1 \end{cases}$$

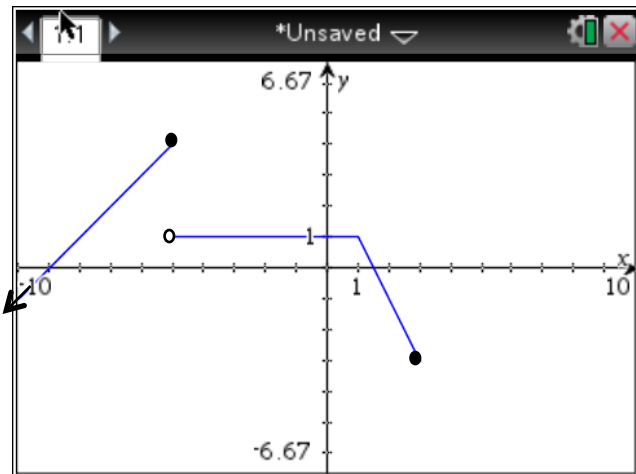


$$2. f(x) = \begin{cases} 3 & \text{if } -6 \leq x < -2 \\ 2x-1 & \text{if } -2 \leq x < 0 \\ x & \text{if } 0 \leq x \end{cases}$$

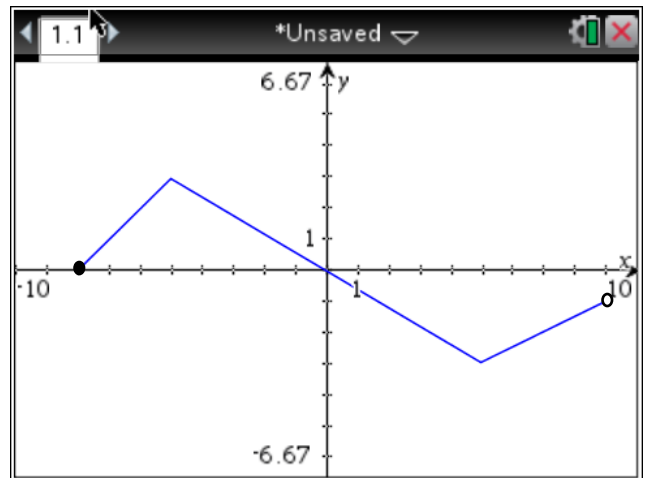


Write the function from each piecewise graph.

3.



4.

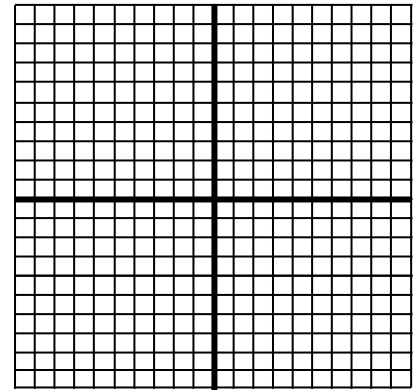
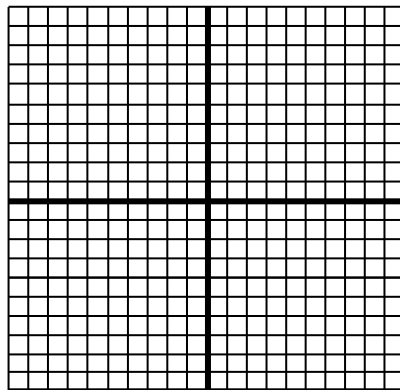
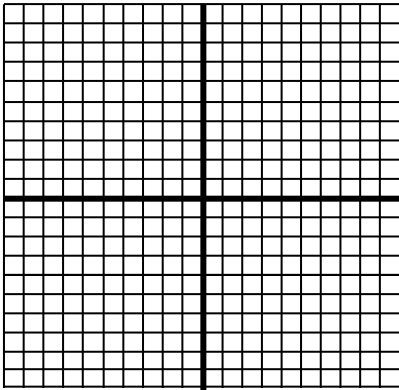


Graph each absolute value function and give the following information:

5.  $f(x) = |x + 2|$

6.  $f(x) = -2|x|$

7.  $f(x) = 3|x + 1| - 2$



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Increasing: \_\_\_\_\_

Increasing: \_\_\_\_\_

Increasing: \_\_\_\_\_

Decreasing: \_\_\_\_\_

Decreasing: \_\_\_\_\_

Decreasing: \_\_\_\_\_

x-intercept: \_\_\_\_\_

x-intercept: \_\_\_\_\_

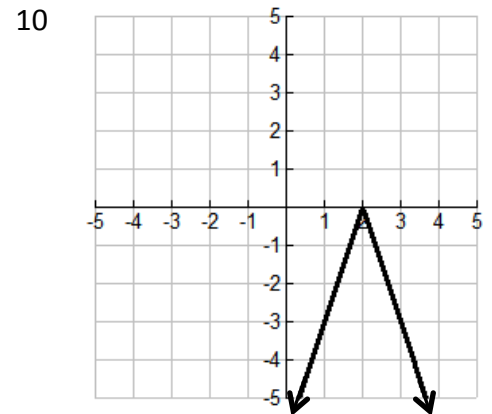
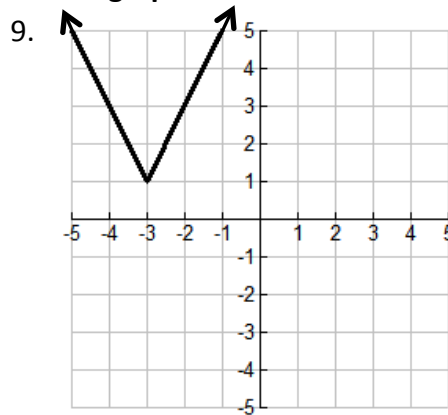
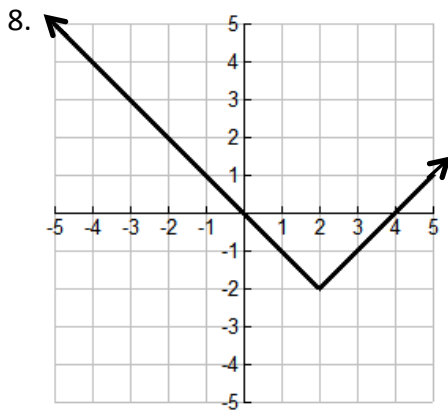
x-intercept: \_\_\_\_\_

y-intercept: \_\_\_\_\_

y-intercept: \_\_\_\_\_

y-intercept: \_\_\_\_\_

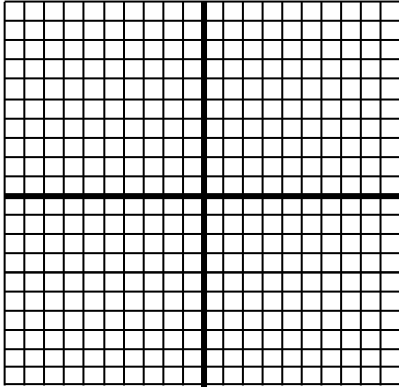
Write the absolute value function from the graph.



Graph each step function.

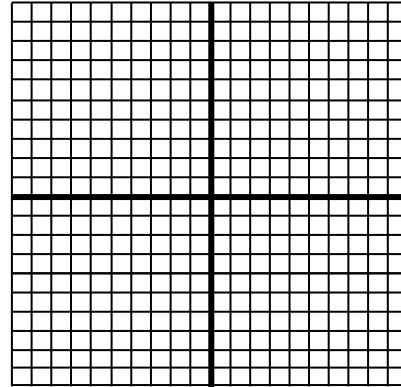
11.

$$f(x) = \begin{cases} 2 & \text{if } 0 \leq x < 2 \\ 5 & \text{if } 2 \leq x < 4 \\ 8 & \text{if } 4 \leq x < 6 \\ 11 & \text{if } 6 \leq x < 8 \end{cases}$$



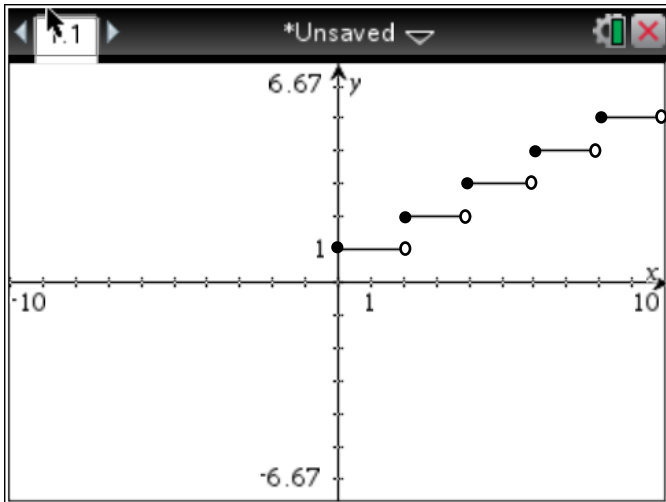
12.

$$f(x) = \begin{cases} 12 & \text{if } 0 < x \leq 1 \\ 10 & \text{if } 1 < x \leq 2 \\ 8 & \text{if } 2 < x \leq 3 \\ 6 & \text{if } 3 < x \leq 4 \end{cases}$$

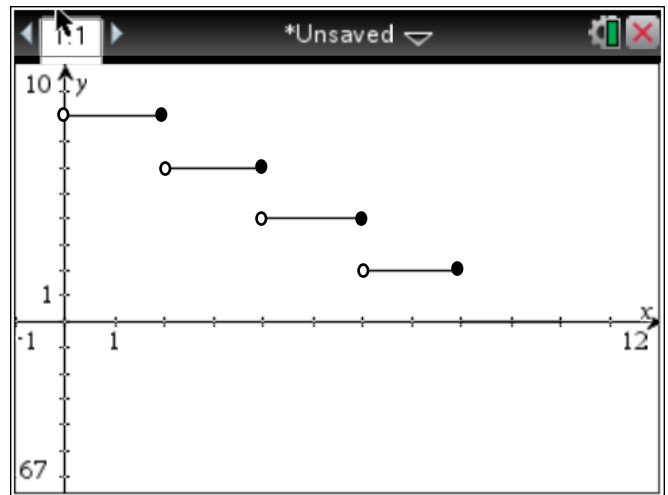


Write the step function from the graph.

13.



14.



Evaluate.

15.  $\lfloor 5 \rfloor$

16.  $\lfloor -2.3 \rfloor$

17.  $|-4 + 2|$

18.  $|3 + 7|$

Are these examples functions? Yes or No

19.  $\{(2, 0) (3, 7) (2, 4)\}$

20.

| X  | Y |
|----|---|
| -2 | 3 |
| -1 | 7 |
| -1 | 8 |
| 0  | 6 |
| 1  | 3 |

21.  $\{(1,0) (2,0) (3,0) (4,0)\}$