

WARM UP

Evaluate the following Piecewise Function for the following values of x.

$$t(x) = \begin{cases} x + 1, & x \leq -4 \\ \frac{1}{2}x + 4, & -4 < x \leq 2 \\ -3x + 6, & 2 < x \end{cases} \quad \begin{array}{l} t(-12) = -11 \\ t(-1) = 3.5 \\ t(6) = -12 \end{array}$$

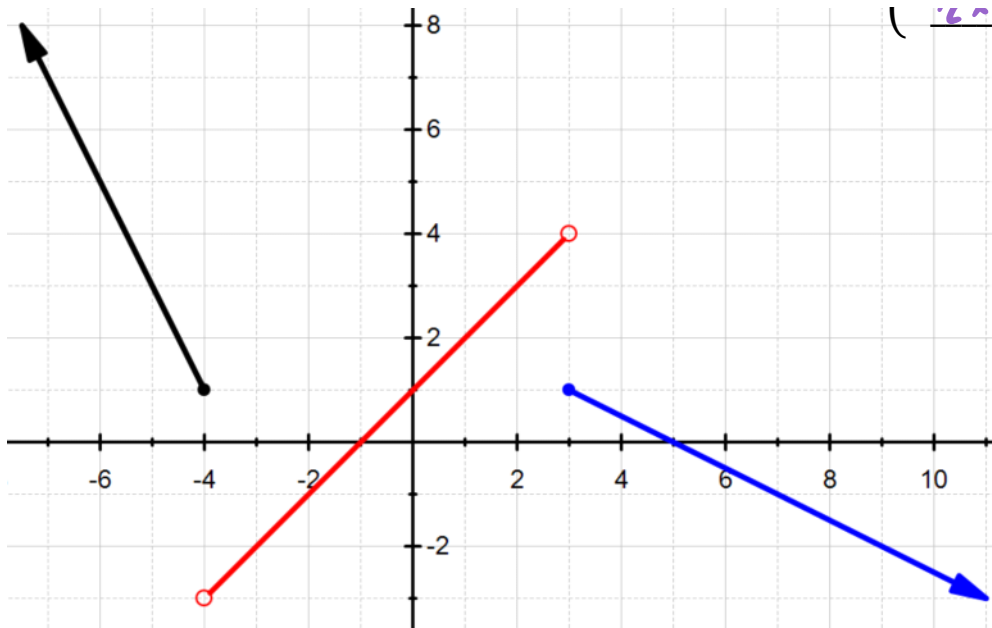
<https://tinyurl.com/vp9vnqt>



Finish the piecewise function.

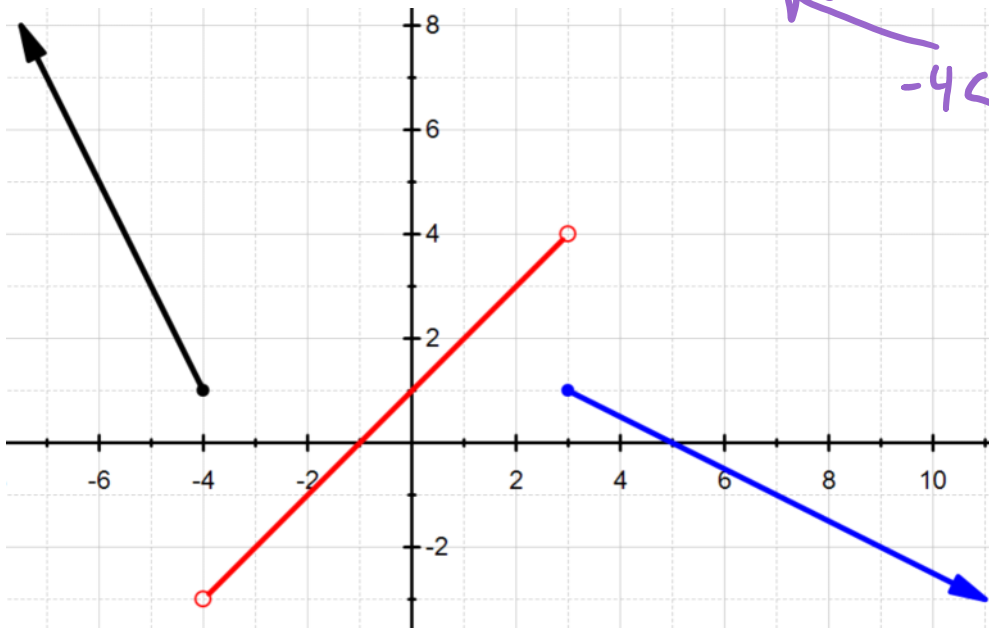
$$f(x) = f(x) = \begin{cases} -2x - 7, & x \leq -4 \\ x + 1, & -4 < x < 3 \\ -\frac{1}{2}x + 2.5, & 3 \leq x \end{cases}$$





$(-6, -4) \cup (-4, 3) \cup [3, 10]$

Over what interval is the graph increasing? Decreasing?



$-4 < x < 3$

$x \leq -4 \text{ or } 3 \leq x$

Your company is going to buy T-Shirts to hand out at Salmon Days as a promotion. You have a t-shirt maker you are going to use but aren't sure how many t-shirts to get. You know that by handing out at least 50 t-shirts you'll get more customers but you can't spend more than \$250 because of budget. If the t-shirts are sold to you using the piecewise function below, how many should you get and for what cost?

using the piecewise function below, how many should you get and for what cost?

$$f(x) = \begin{cases} 15x + 25, & 0 \leq x \leq 10 \\ 10x + 15, & 11 \leq x \leq 50 \\ 5x + 5, & 51 \leq x \end{cases}$$

$f(50) = 500 + 15 = \$515$

can't get +50

$f(10) = 150 + 25 = \$175$

can spend more than that.

Somewhere in between is right. which means middle equation.

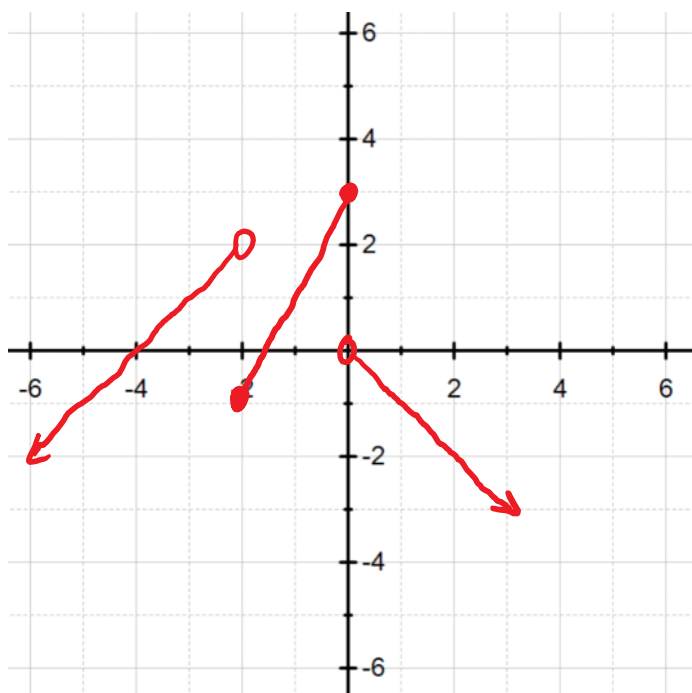
$250 = 10x + 15$

$235 = 10x$

$23.5 = x$

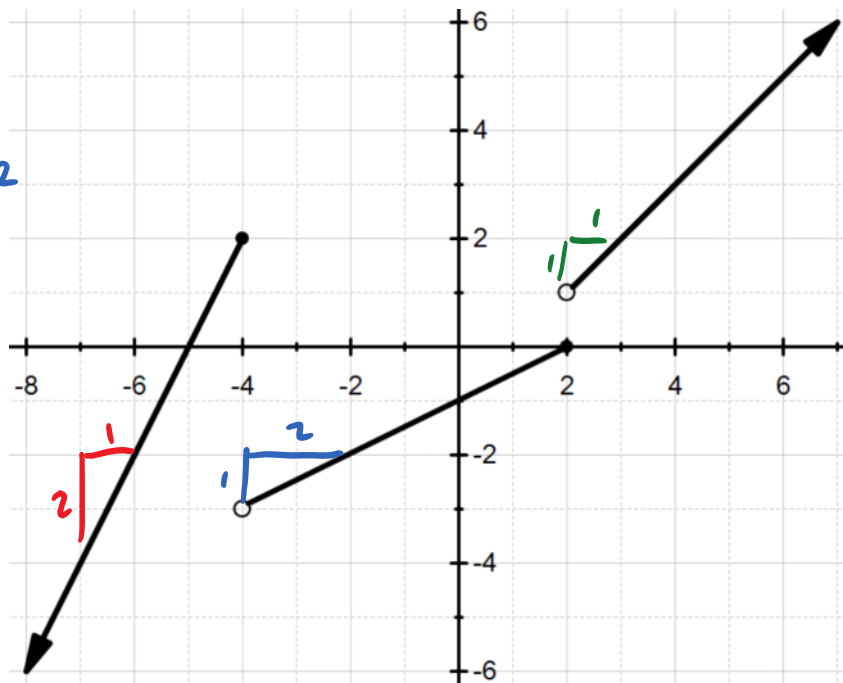
23 T-shirts for \$245

Draw an example of a piecewise function that has a maximum value of 3.



What is the piecewise function for the given graph?

$$f(x) = \begin{cases} 2x + 10, & x \leq -4 \\ \frac{1}{2}x - 1, & -4 < x \leq 2 \\ x - 1, & 2 \leq x \end{cases}$$



<https://tinyurl.com/s7bsxx4>

