Warm Up

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

$$t(x) = \begin{cases} x + 1, & \boldsymbol{x \leq -4} \\ \frac{1}{2}x + 4, & \boldsymbol{-4 < x \leq 2} \\ -3x + 6, & \boldsymbol{2 < x} \end{cases}$$

$\boldsymbol{t(-12) =}$
$\boldsymbol{t(-1) =}$
$\boldsymbol{t(6) =}$

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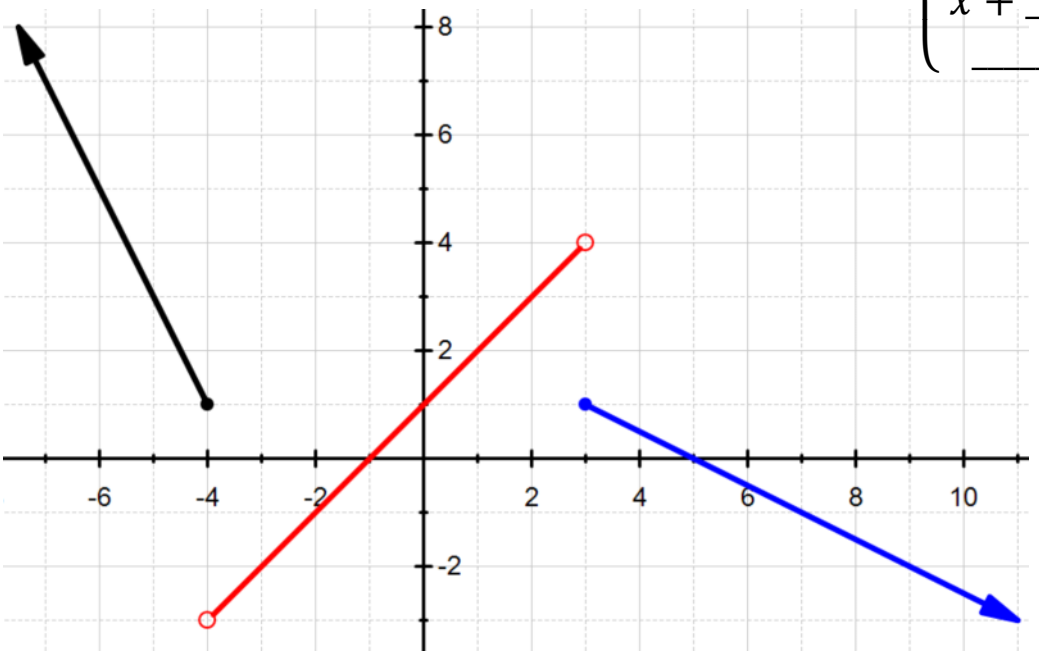
https://tinyurl.com/vp9vnqt

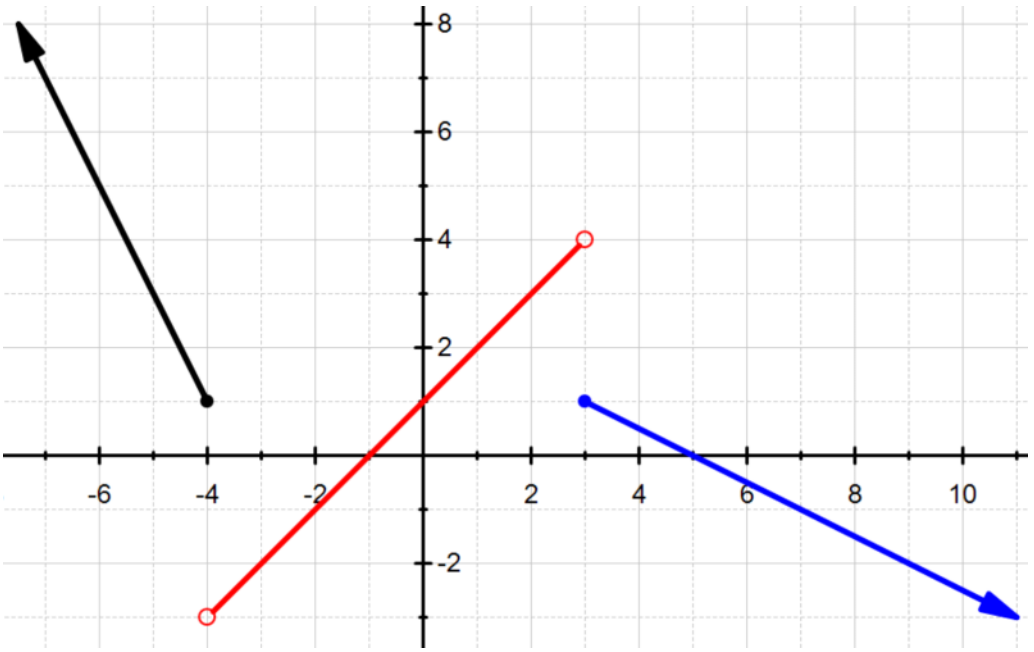
Finish the piecewise function.

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

$f(x) = f(x) = \begin{cases} x + \_\_\_, & \_\_\_ < x < \_\_\_ \\ \_\_\_\_, & \_\_\_\_ \leq x \end{cases}$



Over what interval is the graph increasing? Decreasing?

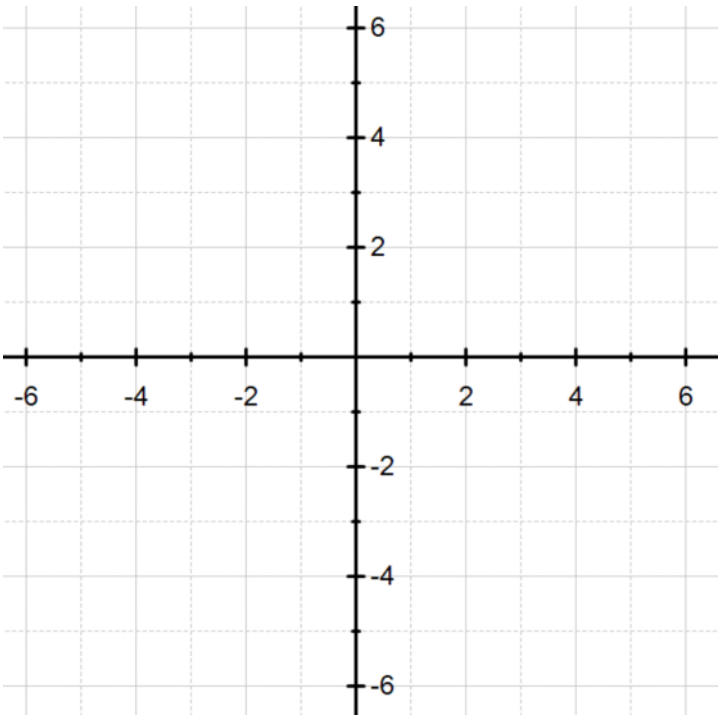


Your company is going to buy T-Shirts to hand out at Salmon Days as a promotion. You have a t-shirt maker you are going to use but aren't sure how many t-shirts to get. You know that by handing out at least 50 t-shirts you'll get more customers but you can't spend

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?

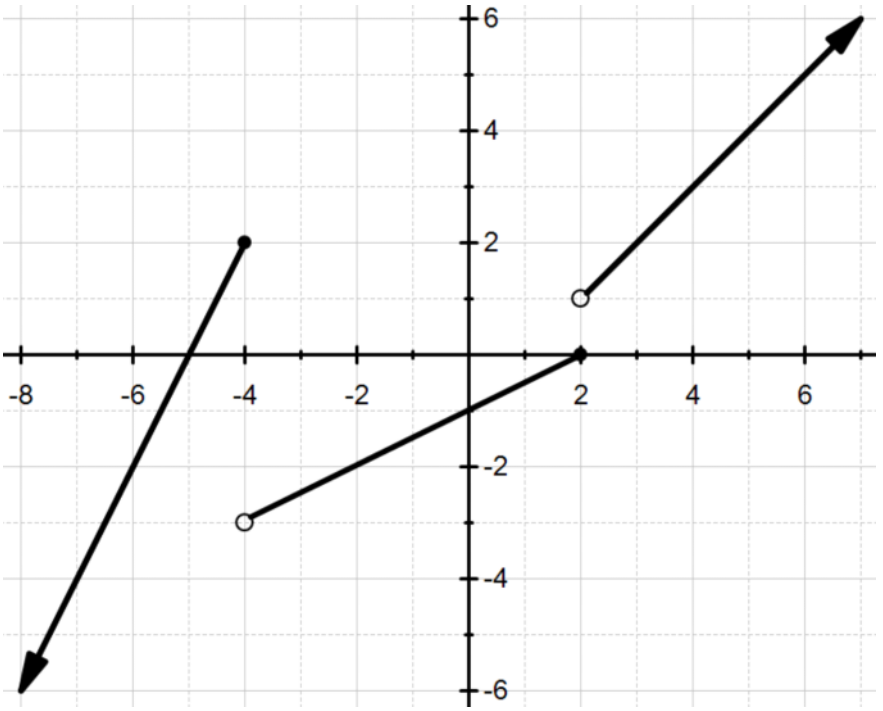
$$f(x) = \begin{cases} 15x + 25, & 0 \leq x \leq 10 \\ 10x + 15, & 11 \leq x \leq 50 \\ 5x + 5, & 51 \leq x \end{cases}$$

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



What is the piecewise function for the given graph?

$f(x) = \{$



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https://tinyurl.com/s7bsxx4
