Piecewise and Step Functions

Objectives:

11) I can graph a piecewise function
12) I can write the equation of a piecewise function

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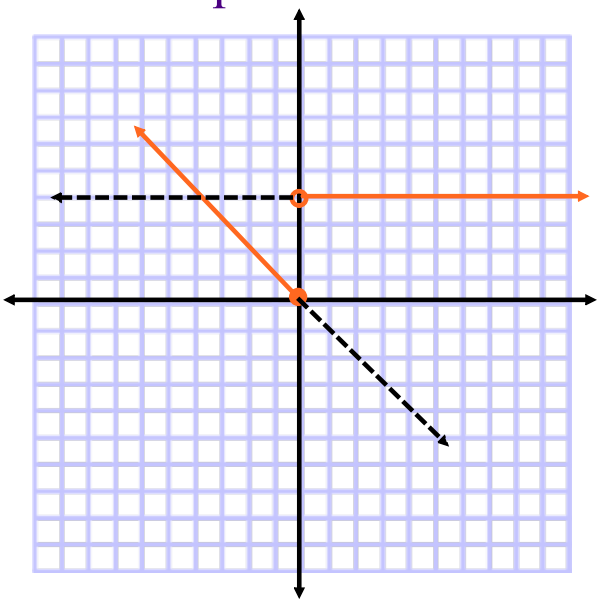
A piecewise function is a function with a different equations defined over unique intervals of x.

For example:

$$f(x)=\begin{cases}-x, x\le 0\\ 4, x\ge 0\end{cases}$$



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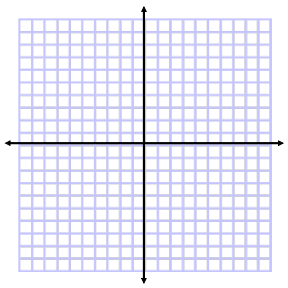
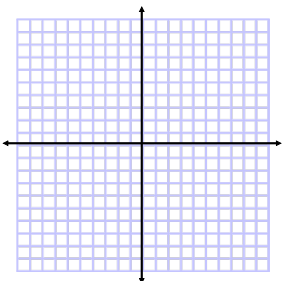
Graph the following:

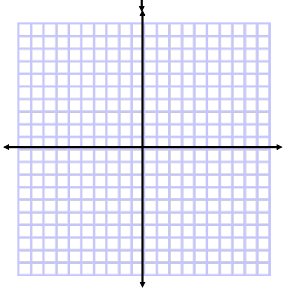
$$f(x)=\begin{cases} x \ \ if \ \ x\geq 0 \\ -x \ \ if \ \ x<0 \end{cases}$$



$$f(x)=\begin{cases} x^2 \ \ if \ \ x\leq 0 \\ \sqrt{x} \ \ if \ \ x>0 \end{cases}$$



$$f(x)=\begin{cases} x^3, x<-1 \\ 2^x, x>0 \end{cases}$$



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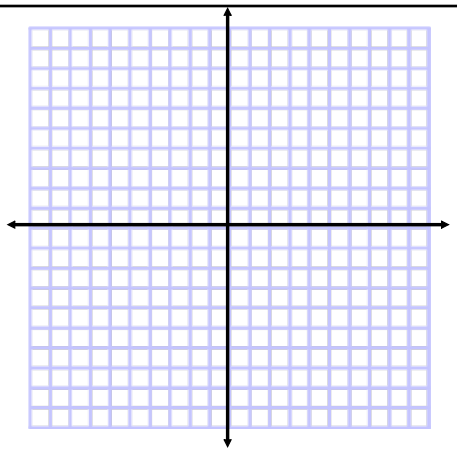
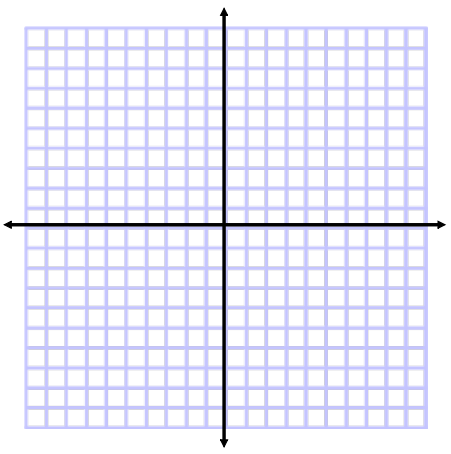
Graph.

$$f(x)=\begin{cases} x^2, x\geq 0 \\ x^3, x<0 \end{cases}$$



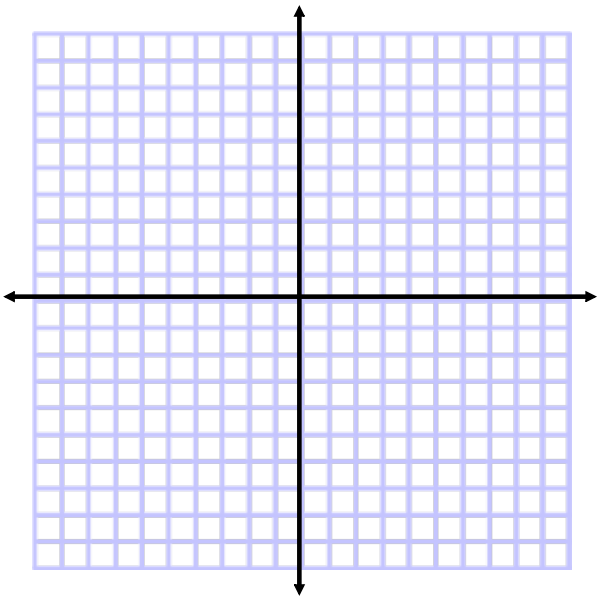
$$f(x)=\begin{cases} x^2, x\leq -1 \\ \sqrt{x}, x>4 \end{cases}$$



Jul 27-10:38 AM

Graph.

$$f(x)=\begin{cases}\sqrt{x}, x>1\\ 2^{x}, x\le 0\end{cases}$$



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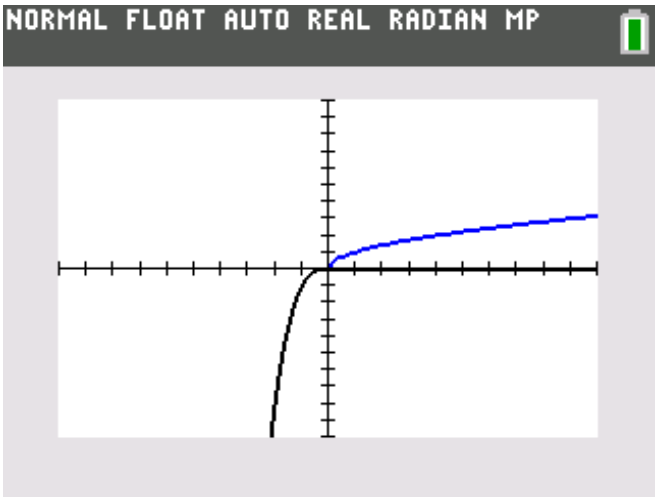
Write the equation for the following piecewise functions



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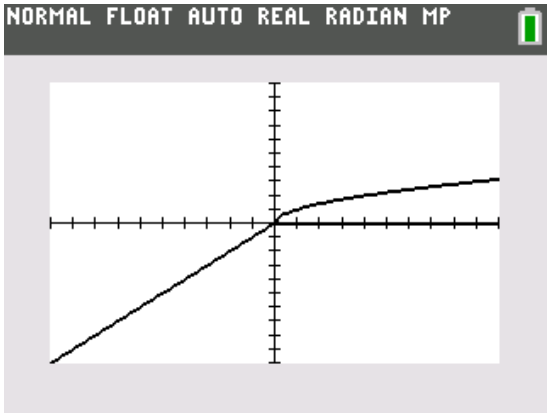
Write the equation for the following piecewise functions.



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