

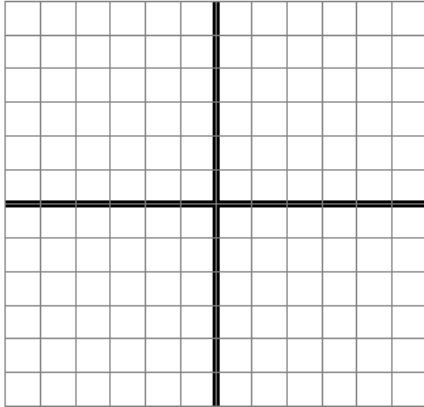
Name: \_\_\_\_\_

Hour: \_\_\_\_\_

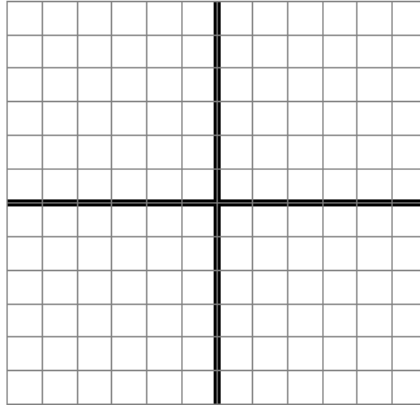
Graph each of these functions. Remember: Parent graph is a V!!

Also:  $y = a|x - h| + k$  ( $a$  is stretch/shrink,  $h$  is horizontal shift (do opposite!),  $k$  is vertical shift)

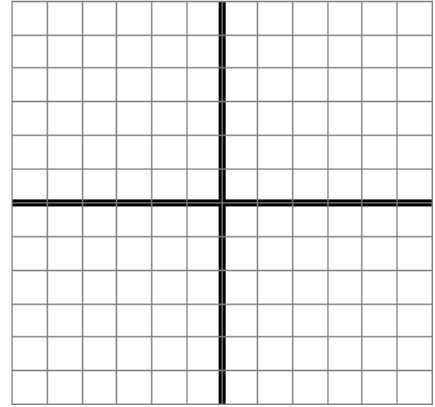
1)  $y = |x|$



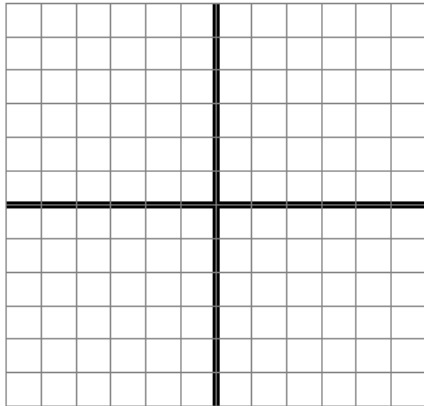
2)  $y = |x + 2| + 3$



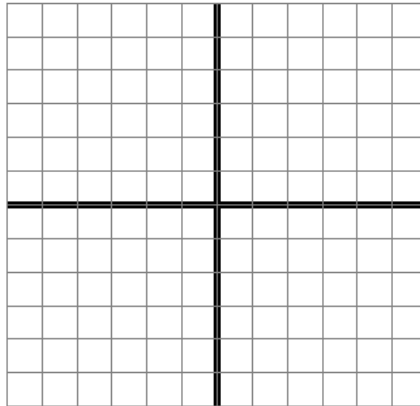
3)  $y = |x - 1| - 2$



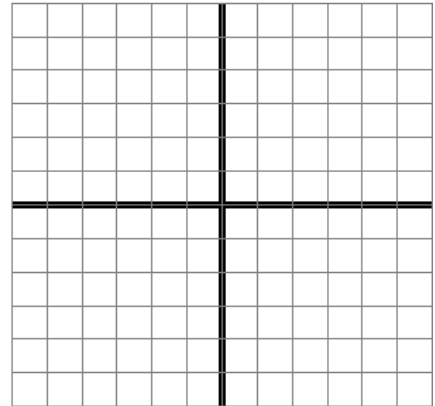
4)  $y = -|x - 2|$



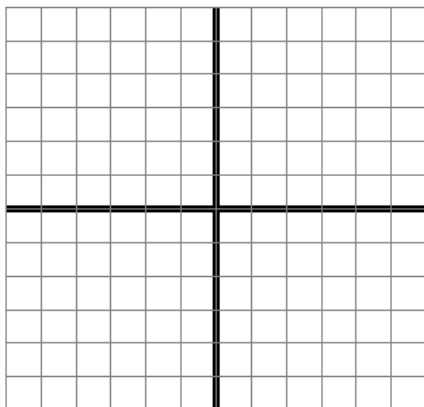
5)  $y = 2|x| - 3$



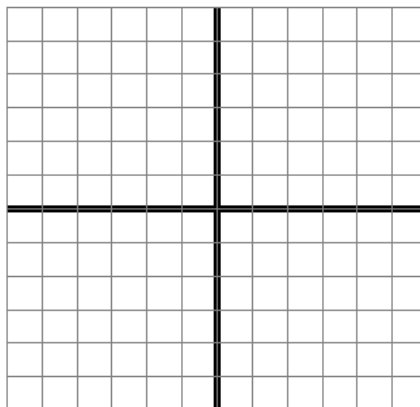
6)  $y = -|x + 3| + 2$



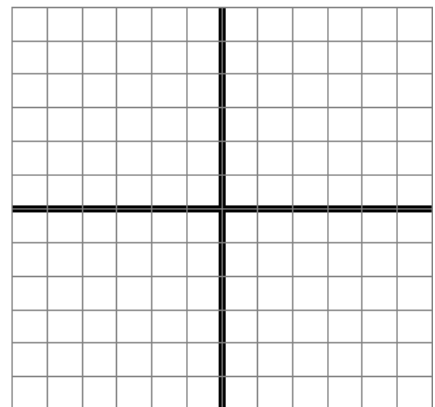
7)  $y = -2|x - 1|$



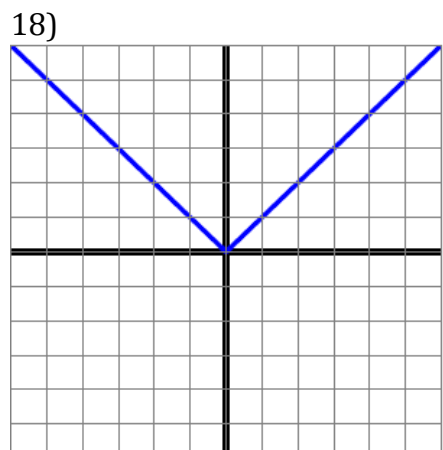
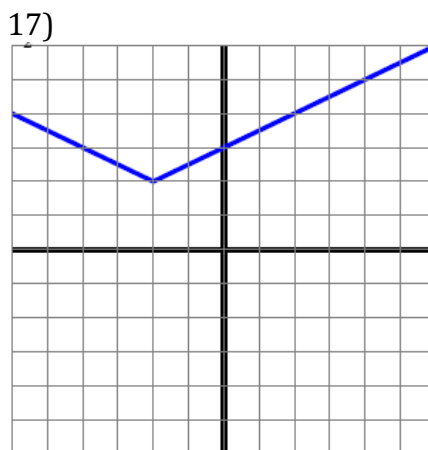
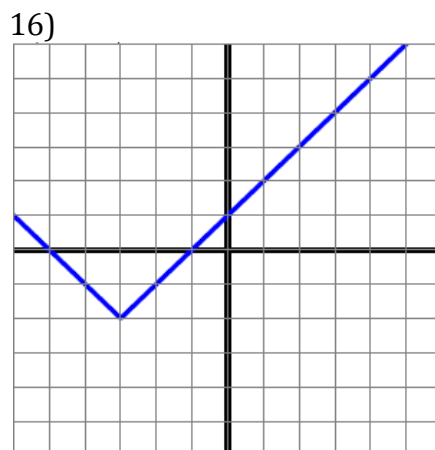
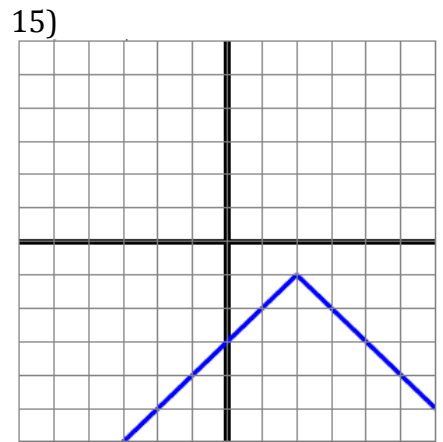
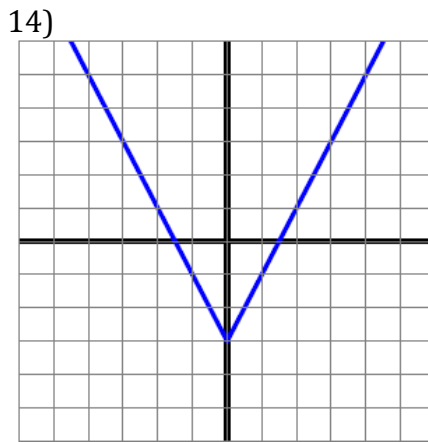
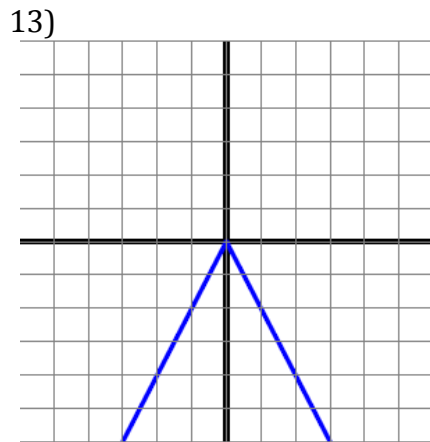
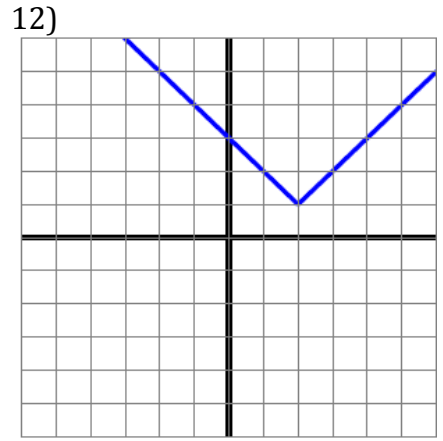
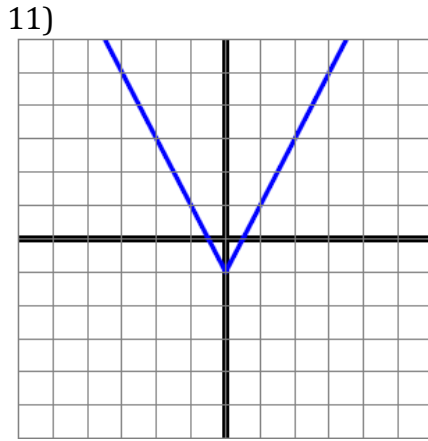
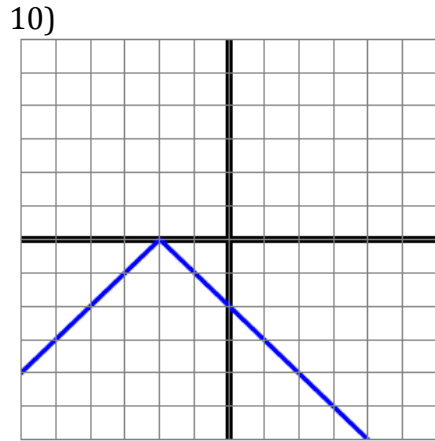
8)  $y = \frac{1}{2}|x|$



9)  $y = -\frac{1}{2}|x - 2| + 3$



Write an equation for each function. Remember:  $y = a|x - h| + k$   
 ( $a$  is stretch/shrink,  $h$  is horizontal shift (do opposite!),  $k$  is vertical shift)



**Solve each equation. Remember: You need TWO ANSWERS!!**

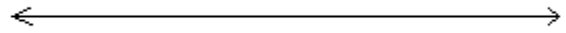
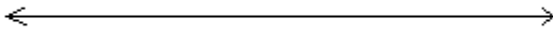
19)  $|2x+3|=13$

20)  $|x+3|-3=4$

**Solve each inequality and graph your solution. Remember: for  $<$  use AND, for  $>$  use OR!**

21)  $2|x+3|\geq 13$

22)  $|3-2x|>13$



23)  $3-|2x|<-13$

24)  $|2x|+3<13$

