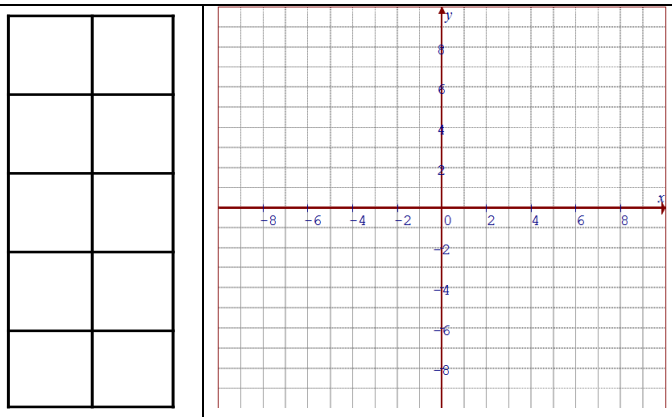
Name:_____ Date:_____

Pre Calculus 11: HW Section 7.2 Graphing Absolute Value Equations:

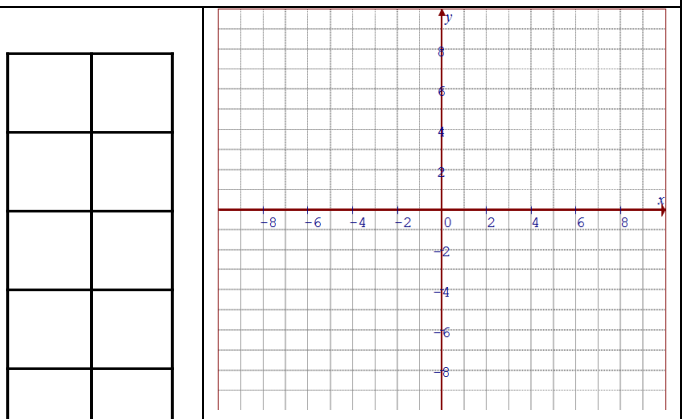
1. Given each equation, make a TOV, graph it on the grid provided, and write the domain and range:

a) $y = |x+4|$



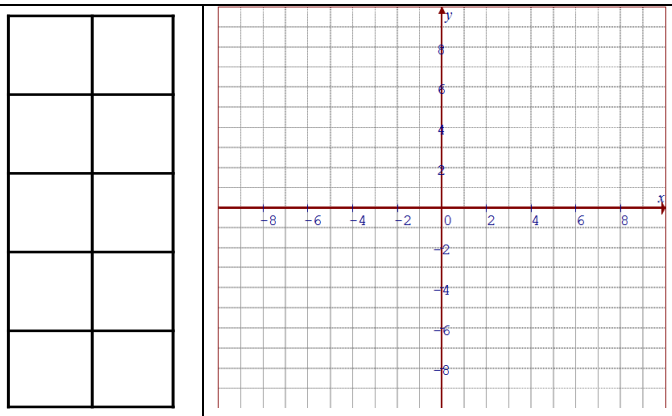
D:
R:

b) $y = |x-2|$



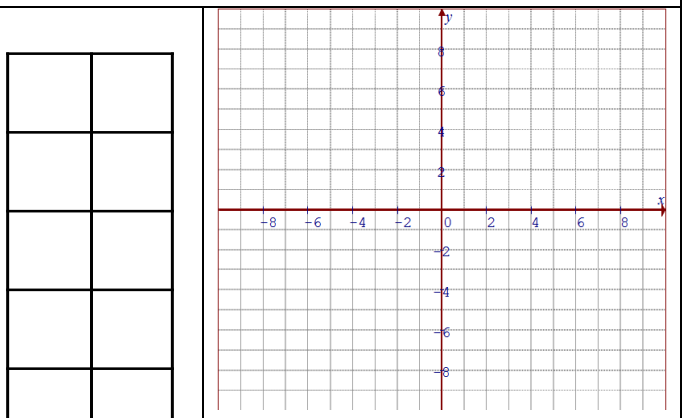
D:
R:

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



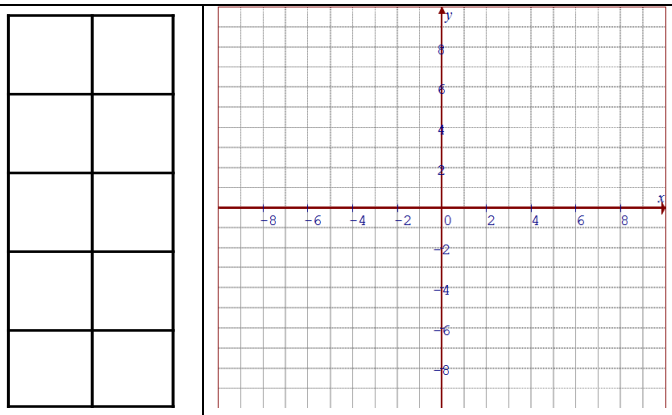
D:
R:

b) $y = -|3x+4|$



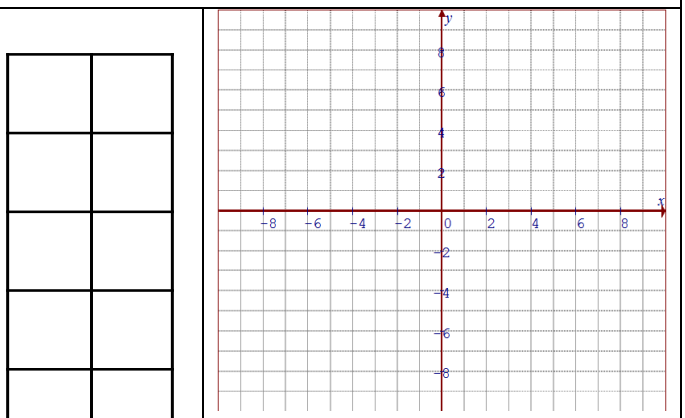
D:
R:

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



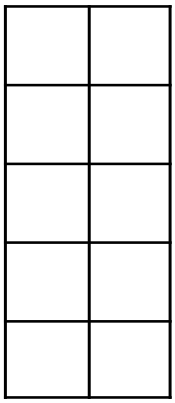
D:
R:

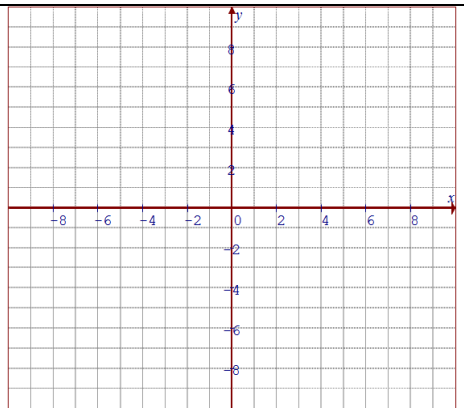
b) $y = -|2-3x|$



D:
R:

a) $y=\left|x^2-4\right|$

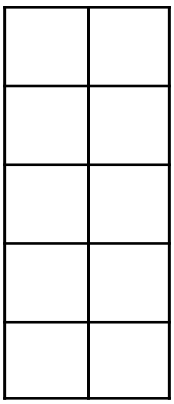


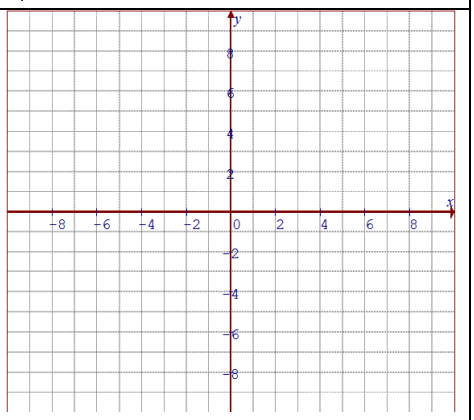


D:

R:

b) $y=\left|(x+2)^2-4\right|$

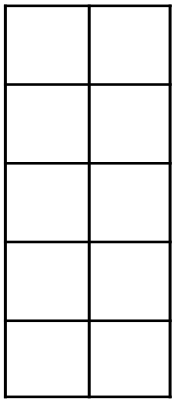


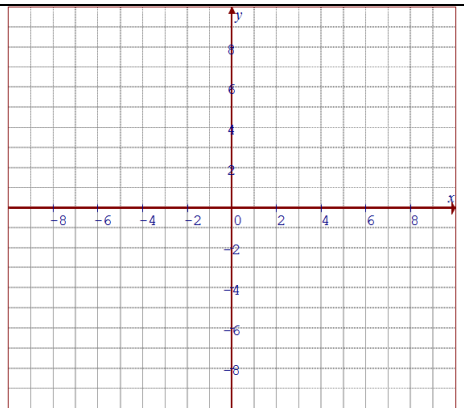


D:

R:

a) $y=-\left|(x-5)^2-9\right|$

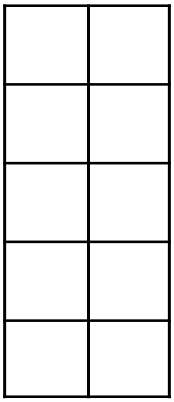


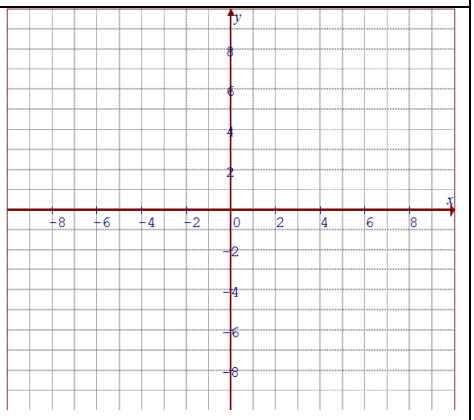


D:

R:

b) $y=\left|x^2-6x+4\right|$





D:

R:

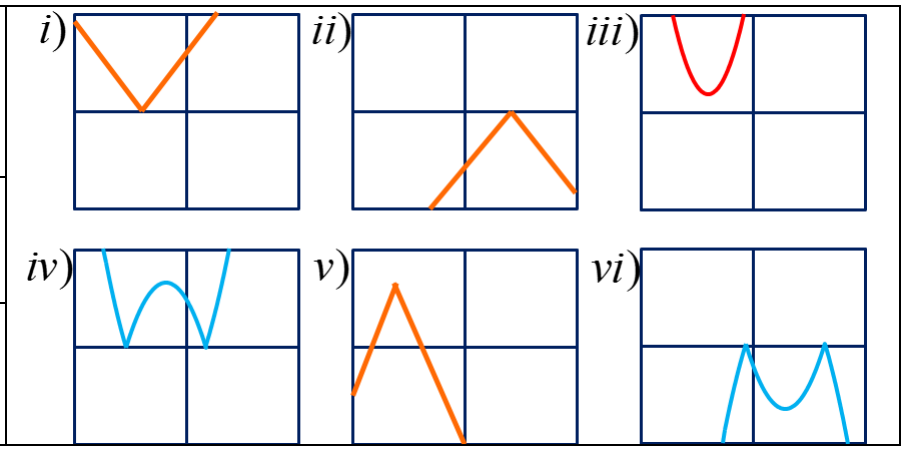
2. What is the difference between the graphs of $y=\left|3x+1\right|$ and $y=-\left|3x+1\right|$.

3. What is the difference between the graphs of $y=\left|3x+1\right|$ and $y=\left|3x+1\right|+4$.

4. The following points $(3,5)$, $(-3,-7)$, $(-2,8)$, $(7,-10)$, and $(-3,-9)$ are on the function $y=f(x)$. What will the coordinates be on the function: $y=\left|f(x)\right|$?

5. Given each equation on the right, indicate which of the graphs on the right is the corresponding one:

a) $y=-\lvert-3x+7\rvert$	b) $y=\lvert(x+3)^2-4\rvert$	
c) $y=-\lvert(x-3)^2-5\rvert$	d) $y=\lvert3x+7\rvert$	
e) $y=\lvert(x+3)^2+1\rvert$	f) $y=-\lvert-5x-8\rvert+4$	



6. Given each equation, indicate the coordinates of the vertex:

a) $y=\lvert2x\rvert$	b) $y=\lvert2x-3\rvert$	c) $y=\lvert2x+5\rvert$
d) $y=\lvert-3x\rvert$	e) $y=\lvert-3x+7\rvert$	f) $y=\lvert-3x-8\rvert$
g) $y=\lvert6x\rvert$	h) $y=\lvert6x\rvert+4$	i) $y=\lvert6x\rvert-3$

7. Given the graphs of $y=f(x)$, draw the graph of $y=\lvert f(x)\rvert$