

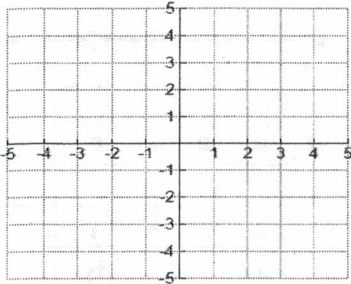
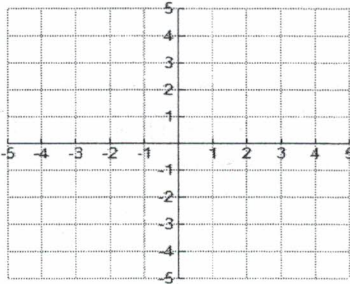
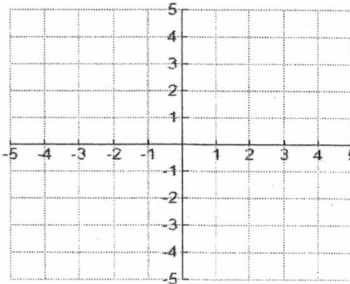
**I. Complete the chart below using the appropriate notation(s).**

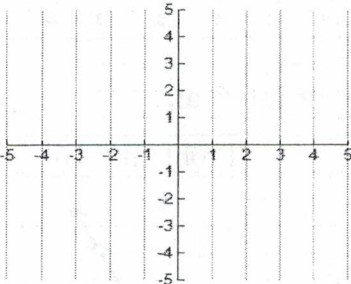
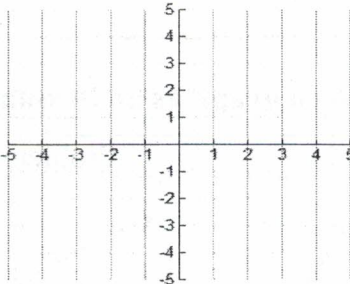
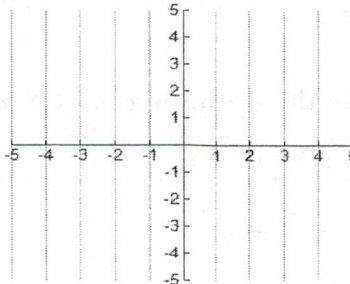
	Inequality Notation	Interval Notation	Graph (on a number line)
1.)	$x \leq -2$		
2.)		$[-1, \infty)$	
3.)	$0 < x \leq 4$		
4.)			
5.)		$(-\infty, -3)$	
6.)	$x > 0$		
7.)			
8.)		$(-\infty, -2] \cup (3, \infty)$	
9.)			
10.)	$x \geq 1, \text{ but } x \neq 3$		
11.)	$-2 \leq x \leq 4, x \neq 1$		
12.)	$\mathbb{R}, \text{ but } x \neq -2, 0$		

**II. State the domain and range of each given graph as an inequality and as an interval.**

Problem # 13	Problem # 14	Problem # 15	Problem # 16
D/R – Using an Inequality D: _____ R: _____	D/R – Using an Inequality D: _____ R: _____	D/R – Using an Inequality D: _____ R: _____	D/R – Using an Inequality D: _____ R: _____
D/R – Using an Interval D: _____ R: _____	D/R – Using an Interval D: _____ R: _____	D/R – Using an Interval D: _____ R: _____	D/R – Using an Interval D: _____ R: _____

- III. Do the following –
- Draw in the original quadratic parent graph.
  - State all the transformations in the given function.
  - Graph the given function based on its transformations.
  - State the domain and range of graphed/transformed function only using interval notation.

Problem # 17	Problem # 18	Problem # 19
<p>Given Function: <math>y = x^2 - 4</math></p> <p>Transformations: _____</p>  <p>Domain (of given funct): _____</p> <p>Range (of given funct): _____</p>	<p>Given Function: <math>y = (x + 2)^2</math></p> <p>Transformations: _____</p>  <p>Domain (of given funct): _____</p> <p>Range (of given funct): _____</p>	<p>Given Function: <math>y = -x^2 + 3</math></p> <p>Transformations: _____</p>  <p>Domain (of given funct): _____</p> <p>Range (of given funct): _____</p>

Problem # 20	Problem # 21	Problem # 22
<p>Given Function: <math>y = (x - 1)^2 - 2</math></p> <p>Transformations: _____</p>  <p>Domain (of given funct): _____</p> <p>Range (of given funct): _____</p>	<p>Given Function: <math>y = (x + 3)^2 + 2</math></p> <p>Transformations: _____</p>  <p>Domain (of given funct): _____</p> <p>Range (of given funct): _____</p>	<p>Given Function: <math>y = -(x - 3)^2 - 1</math></p> <p>Transformations: _____</p>  <p>Domain (of given funct): _____</p> <p>Range (of given funct): _____</p>