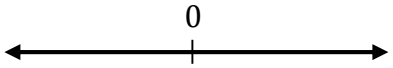
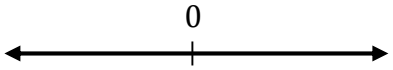
Honors Math II
After Unit 2 test: Interval Notation, Domain & Range

NAME:_____
Period:_____Date:_____

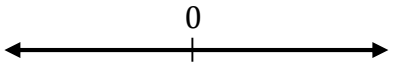
Put in interval notation and draw a graph of each inequality.

1. $x \geq 4$ 

1._____

2. $x < 6$ 

2._____

3. $x \leq -2$ 

3._____

Write each interval as an inequality.

4. $(-\infty, -8]$ 4._____

5. $[5, \infty)$ 5._____

6. $(-2, \infty)$ 6._____

7. $[-10, \infty)$ 7._____

8. $(-\infty, 6)$ 8._____

Write interval notation that describes the graph.

9.

9. _____

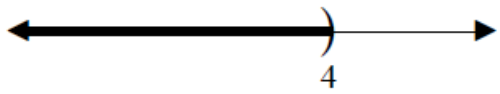
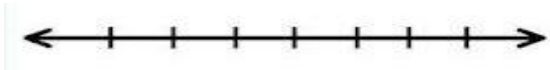
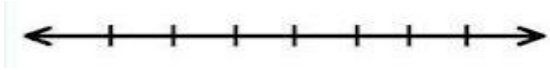
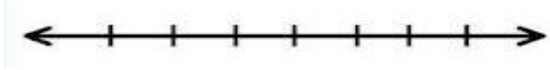
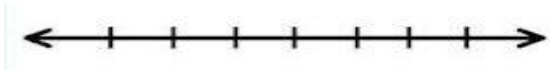
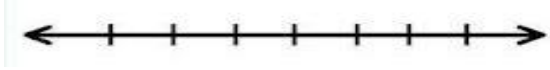
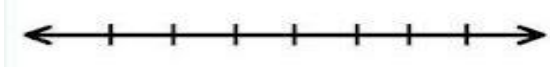
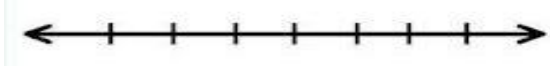
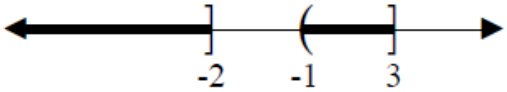
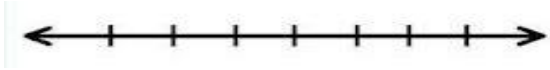
10.

10. _____

11.

11. _____

12. Complete the table below by filling in the missing information in each row.

Inequality	Graph	Interval Notation
		
$x \geq 12.5$		
		$[-1, 4]$
$-200 < x \leq 200$		
		$\left(0, \frac{3}{2}\right)$
$x \neq 5$		
		$(-\infty, -1] \cup [2, \infty)$
$x < 0 \text{ or } x \geq 30$		
		
All Real Numbers		

13. Is 4 in the set (4, 5)?

14. Is $3.33\overline{3}$ in the set $(2, \infty)$?

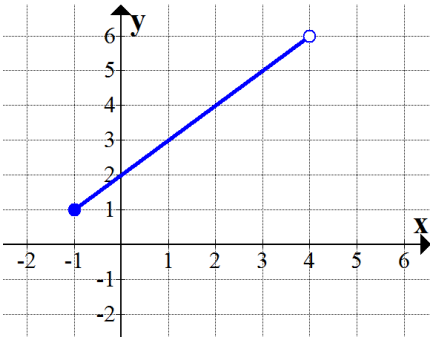
15. Is 3 in the set $(-\infty, 3]$?

16. Is 3.9999999 in the set $(-\infty, 4)$?

17. Is 6 in the set $(-\infty, 6) \cup (6, \infty)$?

Find the domain and range of each graph using **interval notation**.

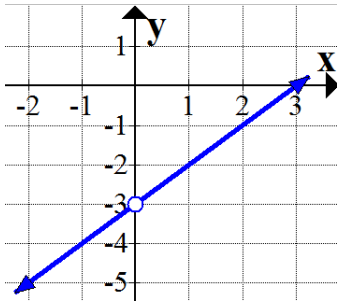
18.



Domain:

Range:

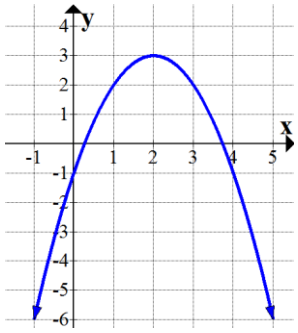
19.



Domain:

Range:

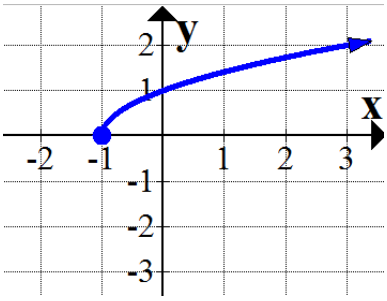
20.



Domain:

Range:

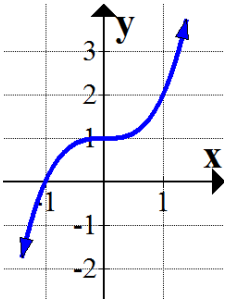
21.



Domain:

Range:

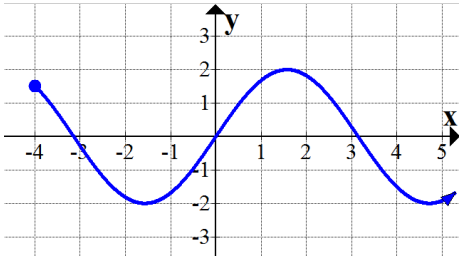
22.



Domain:

Range:

23.

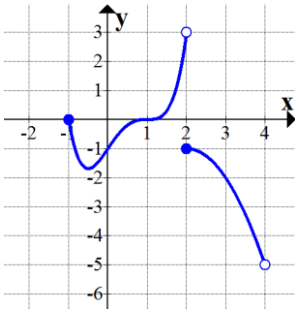


Domain:

Range:

Find the domain and range of each graph using **inequality notation**.

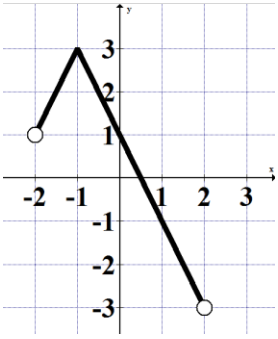
24.



Domain:

Range:

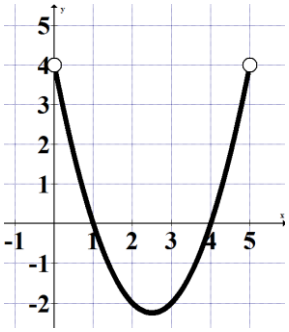
25.



Domain:

Range:

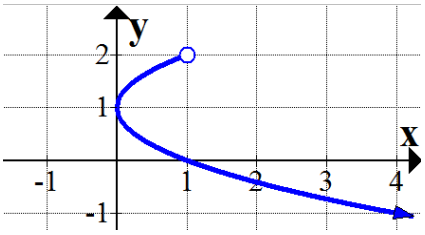
26.



Domain:

Range:

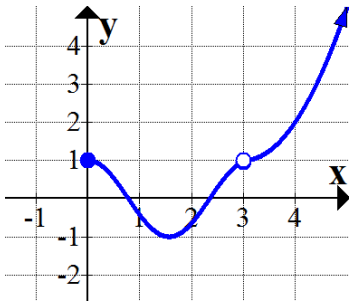
27.



Domain:

Range:

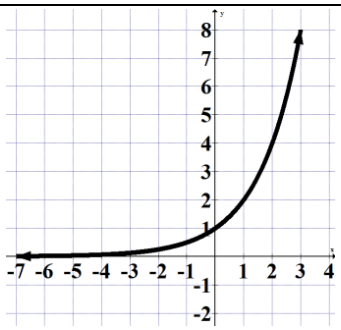
28.



Domain:

Range:

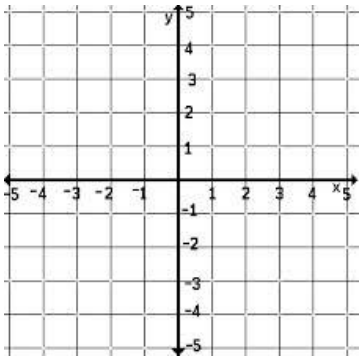
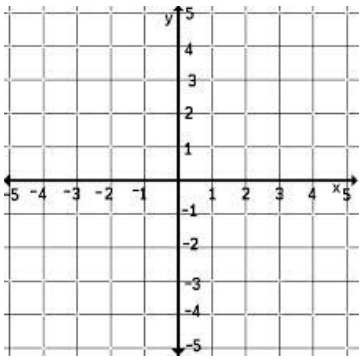
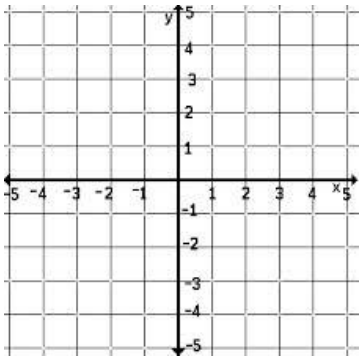
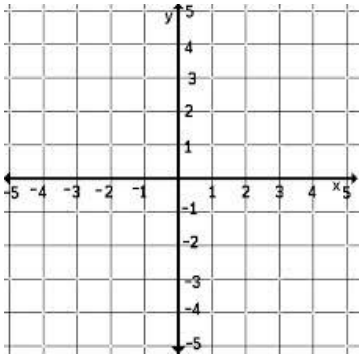
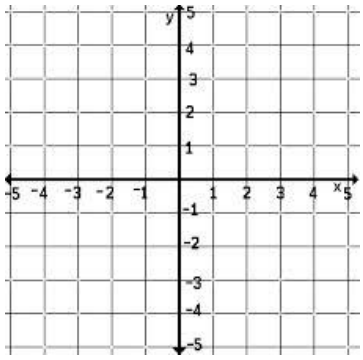
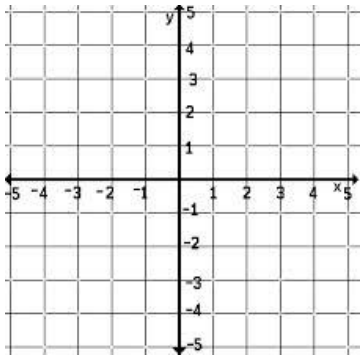
29.



Domain:

Range:

Draw a function that satisfies the give domain and range.

30.  Domain: $(-4, 3]$ Range: $[0, 2]$	31.  Domain: $[-2, 2]$ Range: $[-2, 2]$	32.  Domain: $(-3, 0) \cup (1, 4)$ Range: $[-3]$
33.  Domain: $(-4, 0]$ Range: $(0, 3]$	34.  Domain: $[2]$ Range: $[-3, 4]$	35.  Domain: $(-3, \infty]$ Range: $[4, -\infty]$