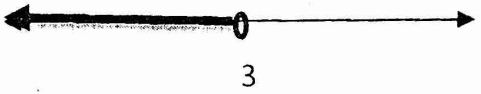
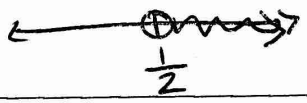
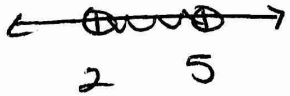
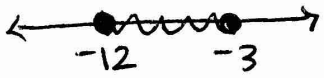
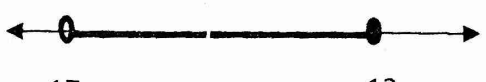
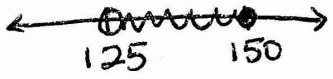
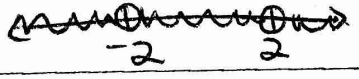
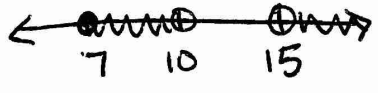
Pre-Calculus

Name Answer Key

Hour _____

Interval Notation Practice

Problem number	Set Notation	Interval Notation	Graph	Word Description of Interval
1.	$\{x: x \leq 10\}$	$(-\infty, 10]$		all #'s less than or equal to 10
2.	$\{x: x < 3\}$	$(-\infty, 3)$		all #'s less than 3
3.	$\{x: x < 6\}$	$(-\infty, 6)$		all #'s less than 6
4.	$\{x: x > \frac{1}{2}\}$	$(\frac{1}{2}, \infty)$		The length of the board is greater than $\frac{1}{2}$
5.	$\{x: 2 < x < 5\}$	$(2, 5)$		all #'s less than 5 but greater than 2

Problem number	Set Notation	Interval Notation	Graph	Word Description of Interval
6.	$\{x: -12 \le x \le -3\}$	$[-12, -3]$		all #'s greater than or = to -12 and less than or = to -3
7.	$\{x: -17 < x \le 12\}$	$(-17, 12]$		all #'s greater than -17 & less than or equal to 12
8.	$\{x: 125 < x \le 150\}$	$(125, 150]$		The numbers of candies must be more than 125 and no more than 150.
9.	$\{x: x \in \mathbb{R}; x \neq -.4\}$	$(-\infty, -.4) \cup (-.4, \infty)$		all #'s except -.4
10.	$\{x: x \in \mathbb{R}; x \neq -2, 2\}$	$(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$		The domain is all real numbers except for -2 and 2.
11.	$\{x: x < -4 \text{ or } x \ge 3\}$	$(-\infty, -4) \cup [3, \infty)$		all #'s less than 4 or greater than or = to 3
12.	$\{x: 7 \le x < 10 \text{ or } x > 15\}$	$[7, 10) \cup (15, \infty)$		all #'s greater than or = to 7 and less than 10 or greater than 15