Set Notation & Interval Notation

Recall from module 2 that the *domain* is the set of inputs (x-values) for which a function is defined. There are two types of notation we will use in Math 1 to represent domain.

<u>Set builder notation</u> indicates the *type* of number (eg. Real, Integer, Natural, etc.) and the conditions that the number meets, using inequalities. Discrete sets are defined with this notation. For example:

 $\{x | x \in \mathbb{Z}, -2 \le x < 7\}$

Interval notation uses parentheses and brackets instead of inequalities to represent the set of values. *This notation can only be used for continuous intervals*!

Parentheses () indicate an ______ interval that ______ include the endpoints. Brackets [] indicate a ______ interval that ______ include the endpoints.

Example:	Set Notation	Interval
-5 -4 -3 -2 -1 0 1 2 3 4 5		
-5 -4 -3 -2 -1 0 1 2 3 4 5		
-5 -4 -3 -2 -1 0 1 2 3 4 5		
-5 -4 -3 -2 -1 0 1 2 3 4 5		
-5 -4 -3 -2 -1 0 1 2 3 4 5		