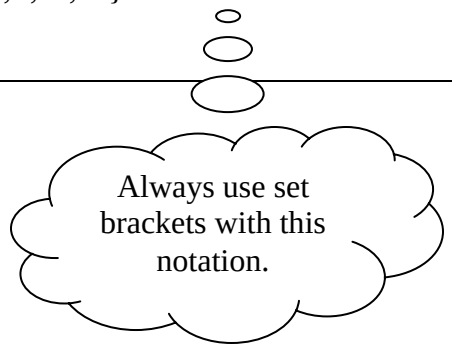
Set notation NAME:
Notation and Cardinality

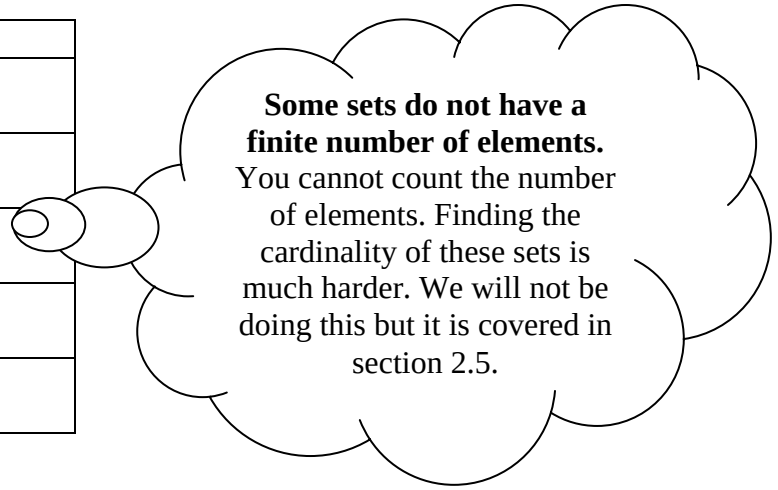
1. Practice converting among the various notations. For each set, fill in the missing notations.

Word description	**Listing method**	**Set-builder notation**
"the set of all whole numbers not greater than 4"	{0, 1, 2, 3, 4}	
		{ x | x is a negative multiple of 6}
	{1, 2, 3, 4, …}	
"the set of primary colors"		{x | x is a primary color}
	{A, E, I, O, U}	



2. Count the number of elements in each of the sets from above. The number of elements in a set is the **cardinality** of that set. The notation is pretty straightforward. If a set is called A, then the number of elements in a set is n(A).

Set	**Cardinality**
A = "the set of all whole numbers not greater than 4"	n(A) =
B = { x | x is a negative multiple of 6}	n(B) =
C = {1, 2, 3, 4, …}	n(C) =
P = "the set of primary colors"	n(P) =
V = {A, E, I, O, U}	n(V) =



3. Use the sets defined above (A, B, C, P, and V). Circle the true statements and cross out the false statements.

a.) $3 \in A$	d.) There are elements that are in **both** sets A and B.	g.) $R \in V$
b.) $-60 \in B$	e.) Green $\in$ P	h.) $E \in V$
c.) $10 \in A$	f.) There are elements that are in **both** sets A and C.	i.) $12 \in C$