Summary of Symbols

If there are others used that you feel should be on this list please let me know and I will add them.

Symbol	Name	Meaning	Example
x, y, z		usually a variable	
a, b, c, n, m		usually a constant	any real number but does not change
π	Pi	Represents the ratio of a Circle's circumference to its diameter.	$C = \pi d$
=	Equals	Left & right sides are the same	a = 3, 2 = 2
<	Less than	Left side is less than the right side	2 < 5
$\leq$	Less than or equal to		$2 \leq 2; 3 \leq 9$
>	Greater than	Left side is greater than the right side	7 > 3
$\geq$	Greater than or equal to		$7 \geq 2$
$\approx$	Approximately or approximately equal to	The two sides are "close" in equality.	$\pi \approx 3.14159$
$\neq$	Not equal	The two sides are not equal	3 ≠ 10
$\pm$	Plus or minus	Add or subtract the second number from the first	7 ± 3 (will give the 2 answers 10 & 4)
$\mp$	Minus or plus	Same as above, sometimes the order of the 2 matters.	
{ }	Set braces (brackets)	Everything inside belongs together.	{2, 3, 4, 5, 6}
$\Re$	Real Numbers	Represents the set of all Real Numbers	
$\in$	Element of	The left side is an element of(member of the set on) the right side	$3.5 \in \Re; \pi \in \Re$
$\notin$	Not an element of	The left side is not an element of the right side	$10 \notin \{2,3,4,5\}$
		Such that	Shorthand notation for the phrase "such that"	{x	x < 2}
(x, y)	Ordered pair	The only way you know which is meant is by the context of the problem. Be careful!	
(a, b)	Interval		
∞	Infinity	The "biggest number" or smallest if – in front.	
$\sqrt{a}$	Square root (radical)	Take the square root of what is inside.	$\sqrt{16} = 4$
$\sqrt[n]{a}$	n^{th} root	Take the nth root of what is inside.	$\sqrt[3]{125} = 5$

Symbol	Name	Meaning	Example
$\lvert b \rvert$	Absolute value	Find the absolute value of what is inside.	
$\cup$	Union	Join all of both sides together.	$\{2, 3, 4\} \cup \{5, 6\} = \{2, 3, 4, 5, 6\}$
$\cap$	Intersection	Only what both sides have in common.	$\{2,3,4\} \cap \{4,5,6\} = \{4\}$
$\rightarrow$	Arrow	Points to the next step, sometimes will have reasoning for the step with it.	
x^n	Exponent	Multiply x by itself n times	$3^2 = 9$
y_m	Subscript	Used to tell related variables apart.	t_0 is the initial time, t_1 is the time after 1 hour. (depending on the problem)