Interval notation shows an answer as a range of possibilities and we use brackets instead of inequalities.
We write the smallest possibility and the largest possibility inside brackets.
[lower limit, upper limit] OR ]lower limit, upper limit[


| Words and Interval Notation |  | Example |
| :---: | :---: | :---: |
| Less Than Is under Is fewer | ]- ${ }^{\text {, upper limit }[\text { [ }}$ | Let $x$ be less than 5 |
| Greater Than Is more than Is greater Exceeds | ]lower limit, $\infty$ [ | Let $x$ be more than 4 |
| Less Than or Equal To <br> Is at most <br> Has a maximum of Is not greater than <br> Does not exceed (go over) Is not more than | ]- $\infty$, upper limit] | Let $x$ be less than or equal to 8 |
| Greater Than or Equal To <br> Is at least <br> Is not less than Is not under <br> Has a minimum value of | [lower limit, $\infty$ [ | Let $x$ be greater than or equal to -2 |

We can also combine these in many different ways.

Ex: Let $x$ be smaller than -9 and at least -14

Ex: Let $x$ be smaller than -9 and bigger than 0

Try these questions!

1) Write the following in interval notation
a) Let $x$ be at most -2
b) Let $x$ be at least 12
c) Let $x$ be less than 27
d) Let $x$ be more than -18
e) Let $x$ be under -52
f) Let $x$ exceed 13
g) Let $x$ be less than or equal to 14
h) Let $x$ be greater than or equal to -4
i) Let $x$ be at least 3 and at most 7
j) Let $x$ be under 8 and more than 6
k) Let $x$ be a maximum of 87 and more than 49
I) Let $x$ be a minimum of -12 and less than 19
