

### 3.5: Compound Inequalities

Two inequalities that are joined by the word \_\_\_\_\_ or the word \_\_\_\_\_, are called a " \_\_\_\_\_ "

"AND" means that it has to fulfill both situations

\* It is where the two graphs overlap.

Example: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Ex.1.)  $3x < 9$  and  $4x > 0$

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"OR" means you must meet one or both situations.

\* We do not care if it overlaps or not.

Example: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Ex.2.)  $4x + 2 \geq 9$  or  $x - 1 \leq 10$

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Class examples:

1. all real numbers between \_\_\_\_\_ and \_\_\_\_\_

2. all real number at least \_\_\_\_\_ and at most \_\_\_\_\_ .

3. Wind speeds of a tropical storm in the Gulf of Mexico must be \_\_\_\_\_ \_\_\_\_\_ mph  
and \_\_\_\_\_ \_\_\_\_\_ than \_\_\_\_\_ mph.

Assignment: page 164, # (5- 33) odd