MATHWORKSHEETS

Solving and graphing multi step inequalities

*Solve each inequality on a piece of paper. Write the solution next to it (always remember to write it with the variable presented first.

*Then DESCRIBE the graph of the solutions on a number line.

Ex. $25 \leq -6m + 1$ step 1: "undo" the constant by subtracting it on both sides

$24 \leq -6m$ step 2: isolate the variable by dividing by -6 on both sides
(it will flip the symbol because of the division by a negative number)

$-4 \geq m$ step 3: rewrite the expression with the variable presented first

$m \leq -4$ step 4: describe the graph ex. Closed dot on -4 arrow pointing left

For each problem, the variable is presented first with the inequality facing two ways. Choose which one is the correct choice and write your number answer in that box. Leave the incorrect choice blank.

$5x + 2 \leq 17$ $X \leq$ _____ $X \geq$ _____	
$21 \leq 3 + 9x$ $X \leq$ _____ $X \geq$ _____	
$9 - x > 10$ $X <$ _____ $X >$ _____	
2 more problems on the next page.	

$2x - 5 > 1$ $X <$ _____ $X >$ _____	
$-2x - 3 \leq -5$ $X \leq$ _____ $X \geq$ _____	