Worksheet: 3.2-C- Solving in a domain   Name_____

Recall four steps to help solve these types of problems:

> 1. Read carefully and <u>underline key words</u>
> 2. Write a Let statement [e.g. let x = …]
> 3. Determined whether to use the $=, >, <, \geq$ or $\leq$ sign
> 4. Write and solve the inequality

1. The cost of a gallon of orange juice is $3.50. What is the maximum number of containers you can buy for $15?

2. The quotient of a number and 15 is no greater than 450. What are the possible values for the number?

3. Keith and Michelle went out to dinner. The total cost of the meal, including the tip, came to less than $53.70. If the combined tip came out to $9.60, and each friend spent an equal amount, how much could each friend pay not including the tip?

4. Jason is saving up to buy a digital camera that costs over $490. So far, he saved $175. He would like to buy the camera 3 weeks from now. What is the inequality used to represent how much he must save every week to have enough money to purchase the camera?

5. Adrian works in New York City and makes $42 per hour. She works in an office and must get her suit dry cleaned everyday for $75. If she wants to make more than $260 a day, *at least* how many hours must she work?

6. Your brother has $2,000 saved for a vacation. His airplane ticket is $637. Write and solve an inequality to find out how much he can spend for everything else.

7. Your local bank offers free checking for accounts with a balance of at least $500. Suppose you have a balance of $516.46 and you write a check for $31.96. How much do you need to deposit to avoid being charged a service fee?