

NAME: \_\_\_\_\_

NUMBER: \_\_\_\_\_

QUIZ over Section 8 in the 'CAT' book; 30 points.

1. What is a 'theorem'?  
(4 pts)

2. Decide whether each 'for all' sentence is TRUE or FALSE. (2 pts each)  
(4 pts) T F For all real numbers  $x$  and  $y$ ,  $x - y = y - x$ .  
T F For all real numbers  $x$  and  $y$ ,  $xy = yx$ .

3. What would you DO to each equation, to transform it to an equation of the form  
(4 pts) 'some variable = some number' ?  
(2 pts)  $x - 3 = 7$  \_\_\_\_\_  
(2 pts)  $6 = t + 2$  \_\_\_\_\_

4. SOLVE the equation  $2x - 5 = 1$ , using TWO of the five acceptable formats for solving equations. CIRCLE the format that you prefer. (4 pts each)  
(12 pts) FIRST SOLUTION SECOND SOLUTION

(4 pts) CHECK your solution, using the preferred format discussed in the text.

5. (3 pts) Give a PRECISE statement of the 'Addition Property of Equality'.  
(6 pts)

(3 pts) What does the Addition Property of Equality tell you that you can DO? (That is, translate the theorem.)